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# HYPNOTISM

~ G. H. ESTABROOKS ~

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Ever since the days of Count Mesmer in the 18th Century, the strange, natural force which we now know as hypnotism has suffered from exploitation and pretence at the hands of charlatans and humbugs. Only today is it being realized that the study of hypnotism is, or should be, an important part of the science of the human mind.

Professor Estabrooks, a psychologist, comes forward to rescue hypnotism from the disrepute and legend which so long surrounded it. In simple, straightforward language, he tells us exactly how this mysterious condition of the human brain and consciousness can be brought about, what can be done by its means—and also what *cannot* be done. How the hypnotic trance can be used in medicine, for educational purposes, and in other ways. He also shows that hypnotism teaches us about the subconscious human mind, and explains other mysteries, such as automatic writing and many of the phenomena of so-called spiritualism.

While Professor Estabrooks explodes a good many myths and popular superstitions about hypnotism, he makes clear that as a scientific fact the hypnotic trance can be easily induced in many people, even without their knowledge, and then used either for good and beneficent purposes or the opposite. To know the truth about this mysterious force and so to be able to protect ourselves against its misuses is a vital matter for all of us.

This definitive book is packed with important facts, which will surprise the majority of its readers. The chapters on *Medical Uses of Hypnotism* and *Hypnotism in Human Affairs* have been extensively revised and show how hypnotism can play an ever-increasing part in education, medicine, and other major endeavors of mankind.

"This completely new and revised edition of an already excellent book surpasses even the original publication and should be required reading for all who wish to gain an introductory and insightful understanding of scientific hypnosis at the present time."—Dr. Milton V. Kline

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By

GEORGE H. ESTABROOKS

*Completely New*
*and Revised Edition*

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*Dedicated to*

DR. G. B. CUTTEN

FORMER PRESIDENT OF COLGATE UNIVERSITY
AND AN AMERICAN PIONEER IN THE
FIELD OF HYPNOTISM

# PREFACE

SINCE THE days of Count Mesmer, discoverer of "mesmerism," the name originally given to the strange condition of the mind which we now call the hypnotic trance, this mysterious force has been exploited and discredited by pretense, preposterous claims and charlatanry.

The author believes that nothing but harm can come of allowing such an important field of human experience to remain shadowed by popular ignorance and suspicion. Genuine hypnotism actually stands in the same category as chemistry, physics or mathematics. It is based on definite basic laws and principles which have been discovered by patient experiment and research; and just as astronomy has evolved from the superstitions of astrology, and chemistry from the medieval search for the magical "philosopher's stone," so hypnotism has evolved from the "mesmerism" of the eighteenth and nineteenth centuries into a true science, a branch of the great subject of the human brain and human consciousness. The main facts and rules on which the science of hypnotism is based are known to all competent students of the subject, just as the general laws of chemistry are known to chemistry students; and those general laws of hypnotism are popularly presented in this book.

There are, however, certain specific and highly technical applications of these rules which are unsuited for presentation in detail in a popular book, and these the author has had to touch on lightly, especially on the practical uses of hypnotism in modern warfare. The intelligent reader of Chapter 9, "Hypnotism in Warfare," will sense that much more is withheld than has been told, but as much has been revealed as is compatible with public interest.

The writer wishes to acknowledge the invaluable help he has received, direct and indirect, from his many friends in psychiatry and psychology. Their articles and comments, especially in the

field of hypnotherapy, have led the writer to hypotheses and conclusions with which the men in question would not always agree. Their disagreement has always been courteous.

Men such as J. M. Schneck, M. V. Kline, Harold Rosen, Milton Erickson, S. J. van Pelt, L. F. Cooper, William Kroger, and many others have supplied basic theories and techniques in a field, psychiatry, with which the writer has had little direct experience. If his elaboration of, and deductions from, these theories and techniques seem at times a little imaginative, he presents his apologies. He would point out that the accusation against many a scientist "Lo, the poor, stifled imagination" could hardly apply to these men themselves.

The author has quoted from articles by himself in *The Journal of Clinical and Experimental Hypnotism, The British Journal of Medical Hypnotism* and *Personality*. He wishes to acknowledge these sources.

Finally he is grateful to the members of his own Department of Psychology. Their reactions have been searching, at times almost caustic, but always constructive.

G. H. E.

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# HYPNOTISM

CHAPTER I

# *Meet Hypnotism*

Let us first look at a few facts about hypnotism. You may find some of these both amazing and disturbing. For example, will a person in hypnotism do things he would not do in the waking state? Very recently, in Denmark, there was a murder which bears on this question. An amateur hypnotist named Nielson had induced an hypnotic subject named Hardrup to commit a murder. The case was easy to solve, for Nielson was a blundering amateur. The chief state witness was a Dr. P. J. Reiter, an international authority on hypnotism. At the trial, he made the statement that in hypnotism any man is capable of any act.

The outcome of that trial may seem just a little strange from some viewpoints. Nielson, the hypnotist, got a life sentence, the maximum penalty in Denmark, whereas Hardrup, the actual murderer, received a two-year sentence on the basis of temporary insanity.

Several years back, I gave a little tea party at Oxford, England, in honor of an American guest who I knew was interested in certain aspects of hypnotism. To that party I invited two English friends. It had just got nicely under way when one of my English friends suddenly arose, went to the door and ushered in the Prime Minister of England. Needless to say, the Englishmen regarded the visit as a great honor. The party continued for about an hour. My English friends served whisky and soda to his excellency and had a wonderful time as they questioned him on all sorts of political issues. The Prime Minister seemed quite capable of taking care of himself and sent my friends into gales of laughter with some of his witty remarks.

This was exactly as it should have been with one little joker—there was no Prime Minister. My English friends, both excellent hypnotic subjects, were acting under posthypnotic hallucinations. To them, his excellency was very real. To the rest of us, the ex-

perience was just a little uncanny as they sat there carrying on an animated and brilliant conversation—with an empty chair.

Can a person be hypnotized against his will? That, to a hypnotist, is a silly question. No psychologist who regarded himself as an authority in this field would waste his time trying to do so. He would use the disguised technique, a device well known to the research hypnotist, a device as successful as any other means of producing hypnotism. The question that should be asked is, "Can a man be hypnotized without his consent?" The answer is an emphatic "Yes."

Then what? That depends on the hypnotist and his plans. Should he be interested in the military application of hypnotism—as is the writer—he might at first proceed somewhat along the following lines. And please believe me, we shall talk in terms of scientific facts, not daydreams. First, the hypnotist would try for that amazingly quick control so essential to his line of research. After a little practice, a hypnotist can train a subject to go into the trance in literally one second, and to come out of it in the same time. The hypnotist would also remove from the subject all knowledge of having been hypnotized. If questioned on the matter, the subject would maintain that he had no interest whatsoever in hypnotism and had never been hypnotized in his life. This may seem hard to believe, but it is a mere chore to the practiced psychologist. Then he would probably make it impossible for anyone else to hypnotize the subject unless he, the operator, gave his consent—again, a little hard for the layman to believe, but a mere chore to the practitioner.

The procedure might develop somewhat along the following lines. During the Second World War, the writer introduced one of his best subjects to a visitor who was striving to master the fine points of hypnotism. We will call the visitor Mr. Jones and the subject simply Bob.

"Do you mind if I hypnotize you, Bob?" asked Jones.

"Go ahead and try. You will be wasting your time. No one can hypnotize me," Bob replied.

"The Professor here says you're a good subject."

"The Professor doesn't know what he is talking about," came the sarcastic reply.

So Jones worked on Bob for half an hour and got absolutely nowhere.

"I agree with you, Bob," he said. "The Professor doesn't know what he's talking about."

"Bob," said the writer, "are you sure you have never been hypnotized in your life?"

"I am," he replied.

"And you are quite certain that I couldn't hypnotize you?"

"That's correct," he snapped back.

In one second flat, he was in a deep trance.

Have you ever heard of, or seen, waking hypnotism? Probably not. Let us give a brief word of explanation before we describe the next case, otherwise you could be hopelessly lost. By the use of what we call posthypnotic cues, the skilled hypnotist dealing with a trained subject can shift from a trance to the waking state, or from a waking state to the trance, with bewildering speed. Moreover, if the subject has been trained with this end in view, it is practically impossible to tell from his looks whether he is hypnotized or whether he is awake—again a mere chore in the research laboratory.

Now let us illustrate what we mean by waking hypnotism. The setting was another tea party in a room of a college at Oxford. There were three people present, one of them a medical doctor who was interested in the medical aspects of hypnotism. As the tea drew toward its close, the writer winked at his doctor friend. Now see if you can follow this one.

"Tom," he queried, addressing the third man present, "where have you been for the last two hours?"

"I've been up on Boar's Hill playing golf," came the reply.

Tom had been hypnotized all the while and the doctor had not detected it. He had also been given the posthypnotic suggestion that when awake and questioned he would insist that he had been on Boar's Hill. We admit this gets a little complicated but try to follow it. The writer had used one of those subtle posthypnotic cues to pull Tom out of the trance.

My doctor friend looked at him hard and long.

"Listen, Tom," he said, "you know perfectly well you have been sitting right here having tea with us for the last two hours."

"Why, certainly. That's what I told you."

Tom was in the trance again.

"But you just told me you had been playing golf on Boar's Hill."

"That's right, I was," Tom replied. He was awake.

This little farce went on for the next ten minutes and try as the doctor would, he could not pick up the cues by which the writer was hypnotizing and de-hypnotizing Tom.

Let us take another example of waking hypnotism and of this speed of control, one which is easier to believe. The writer has more than once used a good hypnotic subject as a partner at bridge. He will play one hand in the trance, one hand out of the trance, and no one else can tell when he is hypnotized, when he is awake, or can pick up the posthypnotic cues by which the writer makes the transitions.

But what can we do with hypnotism as it has been described here? Hypnotism may be a fascinating subject to study, but this is a very practical world. How do we use it or how could we use it if we were free to do so? Let us illustrate. Let us begin with the destructive phases of modern life, such as warfare, thence through certain lines of human activity where hypnotism could definitely be of great use, but cannot now be used fully because of popular prejudice against the use of hypnotism. Medicine is one of the fields in which its worth is now being appreciated.

Let us take an illustration from warfare, using a technique which has been called the "hypnotic messenger." For obvious reasons the problem of transmitting messages in wartime, of communication within an army's own forces, is a first-class headache to the military. They can use codes, but codes can be lost, stolen, or, as we say, broken. They can use the dispatch carrier but woe betide the messages if the enemy locates the messenger. They can send by word of mouth but the third degree in any one of its many forms can get that message. War is a grim business and humans are human. So we invent a technique which is practically foolproof. We take a good hypnotic subject in, say, Washington, and in hypnotism we give him the message which we wish transferred. This message can be long and complicated, for his memory is excellent. Let us assume the war is still on and that we transfer him to

Tokyo on a regular routine assignment, say, with the Army Service Corps.

Now note a very curious picture. Awake, he knows just one thing so far as his transfer to Tokyo is concerned; he is going on regular business which has nothing whatever to do with the Intelligence Department. But in his unconscious mind there is locked this very important message. Furthermore, we have arranged that there is only one person in all this world outside ourselves who can hypnotize this man and get this message, a Major McDonald in Tokyo. When he arrives in Tokyo, acting on posthypnotic suggestion, he will look up Major McDonald who will hypnotize him and recover the message.

With this technique, there is no danger that the subject in an off-guard moment will let drop a statement to his wife or in public that might arouse suspicions. He is an Army Service Corps man going to Tokyo, that is all. There is no danger of his getting himself in hot water when drunk. Should the enemy suspect the real purpose of his visit to Tokyo, they would waste their time with third degree methods. Consciously, he knows nothing that is of any value to them. The message is locked in the unconscious and no amount of drugs, no attempts at hypnotism, can recover it until he sits before Major McDonald in Tokyo. The uses of hypnotism in warfare are extremely varied. We deal with this subject in a later chapter.

Let us now illustrate from several areas wherein hypnotism could be of great use to humans but wherein our hands are tied as of the present moment because of popular prejudice.

Just before the Second World War, at Colgate University, there was a certain boy in the sophomore class who was the despair of his parents and his instructors. No one denied his brilliance and no one denied that he was as lazy as all get-out. His parents were friends of the writer and asked him to try hypnotism. After all, there was nothing to lose and much to gain. The boy turned out to be an excellent subject.

Now note what happened. He had the brains; that was admitted. He needed direction, a goal, and he needed motivation. He needed to get the motor in high. We began with a little hypno-analysis, using the technique of C. G. Jung, who claims that our real wishes,

our real aims in life, are locked in the unconscious and that unfortunately most of us do not realize what those true wishes are until it is too late if, indeed, we ever realize the situation.

In hypnotism this boy asserted that his real ambition in life lay along the lines of commercial art. This was something quite new both to the boy's parents and to the boy himself in the waking state. We narrowed the field. Commercial art, but what kind of commercial art? Be specific. This took time. It slowly became evident that his great interest was in the outdoors, especially in the field of botany, so his unconscious mind settled for the idea of a botanical illustrator.

We were now faced with the problem of getting this idea accepted by the conscious mind, which, as we have said before, was as lazy as they come and quite satisfied with gentlemen's grades in anything provided it didn't have to work for it. His conscious mind was frankly unimpressed with this idea of becoming a botanical illustrator. We decided to use direct methods and more or less strong-armed him by means of the posthypnotic suggestion into the Botany and the Fine Arts Department. Then, strange to say, he began to catch fire.

He was graduated from Colgate and during the last two years his grades were approaching Phi Beta Kappa. We had to hold him back, for he was working too hard for his own health. He turned out to be the best botanical illustrator which this university has ever produced. This technique is not generally in use at the present but it may contain great promise for the future. The public has to be educated along these lines, and that education will take time.

Let us now illustrate from another field in which not much is now being done. The writer is, among other things, Director of Placement for his college, hence his interest in the following type of case. This concerns a veteran of the Second World War, Smith, who returned to Colgate and finished his college work after being discharged. By graduation, he was already married, had a family and was definitely slanted in the direction of business. Under these circumstances we decided to roll with the punches, so to speak. Possibly we could have done a more thorough job under hypnoanalysis using the technique of Jung, but the man had to earn his living immediately on graduation, and he chose the field of busi-

ness with an open mind. In this case neither the man in question nor the business organization is aware of the somewhat unusual methods employed to solve his problem.

Shortly after the war a very considerable number of veterans returned to the college for the purpose of finishing work for the bachelor's degree which had been interrupted by hostilities. These men because of their added maturity and experience were very much sought after by business organizations. One such organization—we will call it Company X—announced that it would send in a scout from one of the nearby cities to look over possibilities in a graduating class. The men to be interviewed were veterans graduating that June. The scout in question would then advise the personnel department of this firm in New York City as to his findings and the regular personnel men would visit the campus two weeks later to close the deal.

The scout in question, Mr. Jones, arrived on the campus and interviewed ten graduating veterans whom we considered qualified for his organization.

We then reviewed his impressions of the men in question. He expressed himself as being very well satisfied with the sample he had seen, stating that his company would probably acquire half a dozen of them and he listed the ten men in his order of preference. Down at the bottom of his list the man least desirable according to his impressions was our graduating veteran Smith. Jones admitted that Smith might be a pretty good man for some other concern, but at the present moment he did not know what he wanted. Moreover, he was lacking in confidence, also in aggressiveness, two qualities very much required in American industry. His superiors from New York City would visit us in two weeks and probably confirm his impressions on all ten men.

We pointed out to him that while he was probably correct in his judgment of the men we would ask the men from New York City to interview Smith along with the others as a courtesy gesture on their part. If he were not interviewed, it might further undermine his confidence in his own abilities and have a bad effect on his entire vocational outlook. Jones admitted that this request on our part seemed reasonable and we let the matter rest there when he left the campus.

What Mr. Jones did not know and still does not know was that the Smith in question was an excellent hypnotic subject. We had been using him continuously for over a year in certain research work and were naturally quite familiar with his background and behavior in hypnotism and with his character structure. We decided that research could mark time for the next two weeks while we tried a very interesting little project involving the personality of Smith. His personality showed no evidence of neurosis or of anything remotely approaching a major maladjustment. It simply lacked force and confidence in its own ability.

For the next two weeks we held daily séances with Smith, séances with but one objective in mind—to convert him into a man who would be acceptable to Company X. The use of direct suggestion involves all the basic laws of teaching and the presence of the trance in no way invalidates those laws, at least when one is dealing with a normal personality. It was a question of convincing him of the necessity for developing certain dynamic aspects in his personality, enlisting his co-operation in the project and of then using direct suggestion. These suggestions, in general, were to the effect that he would develop complete confidence in his own ability, that he would not hesitate to exercise his initiative and, finally, would work hard and ignore time clocks.

The New York representatives of Company X came on the campus in due time and interviewed all the ten applicants. They agreed that the men in question represented good potential for their company and that they would probably hire half a dozen of them. It is the habit of these large companies to leave things more or less up in the air until they have had an opportunity of checking applicants from other colleges. However, there was one man in the ten who rated top priority and to whom they made a job offer before they left the campus. His name was Smith. He was simply too good a bet for them to take any chances, since undoubtedly he would receive many offers in the course of the season.

Mr. Jones of the same company called a week later and he was puzzled over the whole thing. He still is. He asked for another interview with Smith which was, of course, granted. He finally summed it up with the conclusion that either Smith or he himself had had an off day three weeks back. He was deeply chagrined and

considerably disturbed that he should have passed by a candidate who was so obviously qualified for the job in question. We will conclude by saying that Smith, acting under our advice, accepted the position and has done very well over the intervening years—this, may we add, with no further reinforcement of the suggestions, since he is so located that our contacts since his graduation have been solely by mail.

Here, again, we have an area in which popular prejudice pretty much ties our hands. The writer has mentioned this case to several highly intelligent businessmen. Their reactions, very natural at this stage of the game, have been to avoid hypnotism and all that it means. It will take time.

We close this chapter by quoting from the field of medicine and we illustrate from the book by Bernheim, *Suggestive Therapeutics*, as translated from the second French edition by Herter. We choose a random selection to illustrate the wide use made of hypnotism by these earlier medical men, for Bernheim's work was first published about eighty years ago. The reader is asked to note that progress in this field during the past ten years has probably been greater than in the preceding one hundred years. We deal with this fascinating picture in Chapter VII.

For example, Observation 10 in his book is a case of chronic lead poisoning and final complete cure with the aid of hypnotism! Hardly a condition in which one would expect a "mental" cure.

Observation 20 is headed "Violent hysterical paroxysms dating back one year. Complete cure from time of first suggestion." This is more the type of ailment we would expect to find referred to hypnotism.

Observation 30: "Nervous aphonia (loss of speech) of one month's standing. Cure by simple affirmation." All these cases have the description of the treatment following the case description.

Observation 40: "Melancholy, insomnia, anorexia (loss of appetite). Rapid cure by hypnotic suggestion." Again more or less the sort of case on which we would expect to use hypnotism.

Observation 50: "Trouble in writing consecutive to chorea. Cure in a single séance of hypnotic suggestion." The inability to write here was very marked and the cure clear-cut.

Observation 59: "Nocturnal incontinence of urine since infancy,

relieved by a single suggestion." Hypnotism is of definite use here.

Observation 71: "Tubercular diathesis. Restoration of sleep and disappearance of thoracic pains by suggestion." Decidedly not what we would expect. Tuberculosis is not a "mental" condition by any stretch of the imagination.

Observation 80: "Rheumatic paralysis of the forearm and right hand. Sensation totally restored in one séance. Total cure in four séances." It sounds impossible but Bernheim was a very careful observer.

Observation 90: "Lumbo-crural muscular pain with obstinate sacro-sciatic neuralgia dating back six months. Notable improvement after several hypnotic séances; almost complete cure after five weeks of repeated suggestion."

Observation 100: "Sciatic pain dating back three days, cured by a single suggestion."

The reader will note that we quote every tenth case from Bernheim, departing from this order only when the cases are very technical. This gives us a good idea of the diversity of the diseases, organic and nonorganic, which Bernheim treated. We would point out that Bernheim held an important position as professor in the faculty of medicine at Nancy, France. Should the reader care to check, he will find that Moll, Bramwell, Tuckey, and others report essentially the same type of result as does Bernheim. These also are respected names in the history of medicine.

CHAPTER II

# *The Induction of Hypnotism*

PERHAPS THE best approach to an understanding of hypnotism is through the popular but somewhat unscientific idea of the unconscious mind. For example, we have all heard of persons who walk in their sleep, in some cases performing feats, like balancing on narrow balconies, which would be impossible in the waking state. When they awaken, they have no knowledge of what has happened yet their bodies were certainly under control of some directing force.

Better as an illustration is the man who talks in his sleep. At times we can enter into conversation with him. If we are careful and know how to proceed, he will talk just as sanely and often far more frankly than when awake. Yet when we do awaken him, his mind is a blank as to what has occurred. Again, it would appear that something must be guiding his thoughts during this period of conversation. We will call this "something" the unconscious mind, a very convenient name for our own ignorance, and a concept we will have to examine in later pages.

This last example provides us with an excellent introduction to our subject, for the individual who talks in his sleep and answers questions is really hypnotized. In fact, this is one recognized method of producing the trance, namely by changing normal sleep into hypnotic sleep. The skilled hypnotist can generally take the sleepwalker or sleeptalker and shift him directly over into deep hypnotism without either the knowledge or the consent of his subject.

Let us see what appears to happen in such a case. When we are in the normal waking condition, the conscious mind is running the body. We act, talk, and think as we please, although such a statement implies "free will," a very controversial point which we will avoid in this book as of only theoretical interest. But in deep hypnotism this conscious mind has been dethroned. Actions are

now under the will of the operator who controls activities and deals directly with the so-called unconscious mind.

If he tells us there is a black dog standing by our chair, we will see the animal clearly and pet it. We will hear a symphony orchestra at his suggestion and describe the pieces being rendered. He may suggest we are Abraham Lincoln and we will give his *Gettysburg Address* or he may tell us that we have absolutely no feeling in our jaws, that the dentist is about to pull a tooth and we will feel no pain. He may even throw the whole thing into the future, saying that tomorrow at 4.00 P.M., no matter where we are, we will suddenly see a black dog at our side, will pet him and lead him home.

So the first concept we get of hypnotism is that curious picture of an unconscious mind controlled by the conscious mind of the operator. The subject will accept any suggestion the operator gives, within certain limits which we will consider in later pages.

In fact, suggestion appears to be the key of hypnotism. It is the method by which the hypnotist first gains his control and unseats the normal conscious mind. After this, he finds that his only way of controlling the subject is again through suggestion, for the subject left to himself will generally do nothing at all. He acts and behaves as if in normal sleep.

This unconscious mind is much nearer the surface in some people than in others. While the average reader will think of hypnotism only in terms of the deepest stage, or somnambulism, there are actually many degrees of the trance. Only about one person in every five has the unconscious so accessible that the conscious can be completely unseated and the operator can deal directly with the unconscious. Yet we find evidences of true hypnotic phenomena in almost everybody.

### *How To Hypnotize*

Let us follow the procedure of the operator as he induces hypnosis. This will serve to show all these various states and at the same time illustrate one method of inducing hypnosis, the method most in favor with the psychologist, who prefers the quiet of his laboratory to the stage of the "professional."

Suggestion is his key and relaxation makes the subject more open

to suggestion. So, first of all, he has his subject seated comfortably in a chair or reclining on a couch. Then he "talks sleep." The subject is asked to close his eyes and the operator begins somewhat as follows.

"You are falling sound asleep. Relax all your muscles and imagine that you are going into a deep sleep. Deeper and deeper. You will not wake up until I tell you, then you will wake up quietly and you will always feel fine as a result of these suggestions. You are falling sound, sound asleep. Deeper and deeper, deeper and deeper." The hypnotist continues this formula for about five minutes and then tries the first and simplest test.

"Listen to me. Your eyelids are locked tightly together. Tight! Tight! Tight! Your eyelids are locked tightly together and you cannot open your eyes no matter how hard you may try. Your eyelids are locked tightly together and you cannot open them. You may try. I dare you!"

Then something very curious may happen. The subject is still wide "awake" in the sense that his conscious mind hears everything and remembers everything afterward. Yet for some reason or other he cannot get those eyes open, struggle as he will. He seems to forget which muscles to use, and raises his eyebrows in hopeless efforts to succeed. The operator is getting his first control over the unconscious and this control we can see progressing in definite steps. It is much easier, for example, to influence certain small muscle groups, say the eyes or the throat, than larger muscles such as those in the arms or legs, while any attempt to get hallucinations —visions—at this stage would almost certainly fail.

We will find that, on a first trial, roughly one half of the subjects cannot open the eyes, while this percentage improves as we repeat attempts at hypnosis. In the long run, after, say, a dozen trials, about ninety percent will reach the stage when they cannot open their eyes.

The remaining ten percent will generally report that they feel rested, relaxed, or sleepy, but will deny any real effects. Probably this feeling of relaxation and general sleepiness should be considered as one of the hypnotic phenomena at this very early stage, but it is hard to demonstrate, whereas eye-closure is quite definite.

However, we must note that whereas the hypnotist can get this

closing of the eyes in ninety percent of his cases, this does not necessarily mean that he can go any further with his suggestions. He may and again he may not. That seems to depend almost entirely on the subject. There are many in whom it is easy to induce eye-closure, but with whom it is quite impossible to get any tests which indicate a deeper stage of hypnotism; no matter how hard the hypnotist may try, he can make no progress beyond this very elementary state and psychology is quite at a loss to explain why. Susceptibility, or lack of it, to hypnosis seems to depend on certain personality traits, still unknown to us, which we cannot influence.

Should the hypnotist succeed in this first test with the eyes, he may proceed at once to another which indicates a somewhat deeper state, such as stiffening of the arm. He will end eye-closure and continue somewhat as follows.

"Now, relax everything. Relax your eye muscles. They are returning to normal. You are sound, sound asleep and will not awaken until I tell you. Then you will awaken quietly and easily. Relax everything. I am now about to make another test. Your right arm is becoming stiff and rigid at your side. Stiff and rigid. The muscles are tightening up. It is stiff and rigid as an iron bar. Stiff and rigid. You cannot bend your right arm. It is impossible to bend your right arm. You may try. I dare you."

Once again we may see that weird condition in which the patient is quite helpless to meet the challenge. He jerks the arm around with a curious sort of tremor and does his best, but his best produces no results. The arm remains stiff and rigid.

Or he may meet the challenge quite successfully, relax his arm and open his eyes. In this case he has broken any influence the hypnotist might have had. But even if he cannot bend his arm, this fact guarantees nothing as to his going deeper. As in the case of eye-closure, he may be wide awake and remember everything perfectly after the séance. The suggestions of the hypnotist have been successful up to this point. Beyond it he may be quite unable to make further progress.

If successful, another test is in order. Various operators will use different tests in different sequences but the idea is the same at this early stage, namely to involve larger and larger groups of muscles in these induced paralyses. The next move might easily be some-

thing like this. First of all we must remove the effects of the previous test. So we say:

"Relax, relax your right arm. It is returning to normal. Your right arm is resting quietly at your side and there is no strain whatsoever. You are sound, sound asleep. Deeper and deeper. Deeper and deeper. You are losing all control over your body. Your body is floating away and you can no longer control your muscles. For example, it is quite impossible for you to stand up. You are stuck in your chair and it is quite impossible for you to stand erect. You may try but you cannot. I dare you."

And the subject either does or he does not. He may pull himself together, even if the other tests have succeeded, open his eyes and stagger to his feet. On the other hand, he may make ineffective efforts to arise, then decide it is useless and relax in his chair.

In all these early stages of hypnotism we notice a curious lethargy, an unwillingness on the subject's part to exert himself. Very frequently, when we dare the subject to open his eyes, bend his arm or stand up, he makes no effort whatsoever. If we question him afterward, we find that he heard the challenge, was certain that he could move the muscles in question if he wished to, but he just couldn't be bothered to try. He was feeling quite comfortable and wished to remain so.

This must be listed as one of the earliest and best signs of success in inducing the hypnotic trance. It is a very significant cue which the experienced operator never overlooks, for it is not what one would expect if there were no influence. For example, suppose a hypnotist goes up to a gentleman sitting quietly in a hotel lobby and suddenly says:

"Mr. Smith. You cannot stand up. Your legs are paralyzed. No matter how hard you may try you cannot leave that chair." Mr. Smith, once he had recovered from his astonishment, would probably stand up immediately and call the hotel management for protection against this madman.

But the hypnotic subject adopts an entirely different attitude. Not only does he think the operator's actions quite reasonable, but also he makes no effort to assert his own independence. This curious lethargy, found in many people, generally indicates that the individual will become a good subject.

Should the operator be successful up to this point, he will proceed with the next step. He has demonstrated, to his satisfaction, that he can control the voluntary muscles, small and large, but this does not necessarily mean that he is dealing with a good subject, a somnambulist. He still has several steps to make. Next he will try automatic movements, talking to the subject somewhat as follows:

"You are sound, sound asleep, going deeper and deeper. Now, listen carefully. I am about to start your hands rotating one around the other. Here they go, round and round, faster and faster. Keep them moving. They are rotating faster and faster, faster and faster. You cannot stop them. No matter how hard you try, you cannot stop your hands from going around."

As in the previous tests we may get any one of three reactions. The subject may be able to resist the suggestion, stop his hands, and remain quiet. Or he may simply allow them to continue rotating, obviously making no effort to stop them. This is the type of reaction we mentioned in which the subject simply cannot be bothered to make the effort. Finally, he may try unsuccessfully to stop them, stiffening up the muscles in all sorts of curious ways, bumping his hands together, even gripping his coat in an unsuccessful effort to bring the movement to an end.

These automatic movements, as they are called, generally indicate a fairly deep stage of hypnotism. For some reason, they are much more difficult to obtain than mere paralysis or stiffening of any muscle or muscle group. When obtained they generally signify that the individual will be a very good subject. But this is not always the case. As before, many subjects will come to even this state of hypnosis and go no further. The conscious mind refuses to relinquish its control and the subject will awake, quite aware of everything that has taken place.

This type of enforced activity can apply to any set of muscles, even those of speech. We can say to the subject, "Repeat after me the words 'Mary had a little lamb.' Now repeat it by yourself. Keep it up. You cannot stop it. You must keep repeating that sentence." And, in many cases, the subject will do as we have suggested.

If the operator has met with success up to this point, he will now

suspect that he has a really good subject with which to deal and will try for somnambulism, the deepest form of the hypnotic trance. After he has convinced himself that the automatic movements are genuine or that the subject is too deep in hypnosis even to make the effort to resist, he may proceed somewhat as follows. "Now, I am going to ask you a few very simple questions. You are sound asleep and will answer me in your sleep, talking as you have heard many of your friends talk in their sleep. You will not wake up and will have no trouble at all in answering my questions." It is always well to repeat instructions several times so as to be sure that the subject understands.

Then the operator will ask some very simple questions, such as: "Tell me, what is your home address?" "Where were you on your vacation last summer?" "How many brothers and sisters have you?"

Questions which have any emotional tone or which the subject may be unwilling to answer for any reason whatsoever should be carefully avoided at this early stage. The subject may easily awaken from this first light trance, have a vague memory of what has happened and refuse to have anything more to do with hypnotism. Even if he does not remember what has occurred, the unpleasantness of the situation may still hang over in a vague sort of way, and make it difficult to obtain full co-operation in the future.

Next, the operator may decide to have the subject stand up and walk around the room. This is accomplished by means of suggestion, which is the key to hypnotism. "You will now stand up. You will not wake up until I tell you, but will stand up, walking in your sleep as you have undoubtedly seen many sleepwalkers. You will find no difficulty at all in using your muscles but will remain sound asleep. Now, stand up." And the operator helps the subject to his feet. Should the subject not wake up under this last test, we may be pretty sure that he is now in somnambulism, although a few subjects will co-operate very nicely up to this point but awaken when asked to move about. The may even walk around, obviously in hypnotism and still retain a fairly clear memory of what has happened after the séance is completed.

In general, we accept the hallucination as the final test of hypnotism. We can hallucinate any of the senses but the most common

type is that of sight, the "vision." We proceed somewhat as follows:

"Listen carefully. When I give the word you will open your eyes but you will not wake up. You are still walking in your sleep. You will not wake up. You will see standing on the table in front of you a very friendly black cat. You will go over, pet the cat, then lift it up carefully and put it on the chair in which you have been seated." We repeat these instructions several times, then say, "Now open your eyes. Open your eyes. There is the cat."

This test is more or less crucial. The subject must be in deep somnambulism if he is to be subject to these hallucinations or visions. Should he not see the cat, then the shock of opening his eyes will probably awaken him completely and the séance is over. Should he really have a vision of the cat, his actions will be characteristic. He will pet the animal and play with it in so convincing a fashion that the operator need have no doubt as to what has really happened. The subject is in deep somnambulism and will remember nothing on awakening.

### *Booby Traps*

Actually there can be many a curious twist which will deceive even a trained hypnotist. The writer was demonstrating hypnotism before a group of medical students. The time was short, so it was agreed that he would take one of the men and simply go through the motions. The subject would co-operate and take the tests to the best of his ability, simply to provide a demonstration for the others of how hypnotism was produced.

We ran through the tests rapidly right up to hallucinations. Here the writer said to the subject, "Now open your eyes. There is an apple in my hand. Take it and eat it." The subject promptly opened his eyes, grinned, and said, "There's a worm in it." The operator took it for granted he was wide awake, asked him to sit down and continued his talk.

But when he dismissed the group, his demonstration subject remained seated, his eyes wide open, but unable to move. "Wake me up, will you," he said. "I can't move." So the operator waked him up in proper fashion. The operator must never take anything for granted in hypnotism, but must be quite certain that his subject

is wide awake before leaving him. This is very important indeed.

Let us suppose that the subject has arrived at somnambulism and the hypnotist wishes to end the séance. He awakens the subject by some such means as the following: "I will now count to five. By the time I get to five you will be wide awake and feeling fine. Wide awake and feeling fine. One, you are waking up; two, you are waking up; three, you are almost awake; four, you are nearly awake; five, you are awake."

Even if the subject should awaken by himself in any of the tests leading up to somnambulism, it is nevertheless a good plan, after he opens his eyes, to assure him, "All right, you're awake now. Wide awake and feeling fine." This very simple precaution may appear a little silly in many cases but it is always well to be sure.

We hear a great deal about the subject refusing to awaken from hypnotism. This appears to be a continual dread of persons who are learning to hypnotize. What do they do if the subject will not awaken? If the operator will follow some such technique as we have outlined, this problem will never present itself. Throughout the entire séance we keep stressing the idea, "You will not wake up until you are told. Then you will awaken quietly and easily."

Should the patient refuse to awaken—the writer has never had such a case—the proper procedure is to allow him to remain quietly in the trance. The hypnotic "sleep" will change over to natural sleep and sooner or later the subject will awaken by himself. But experience will soon teach the operator that his real problem is to get his subject into hypnotism, not to get him out of it.

That is the reason we insert the phrase, "You will not wake up until you are told." Some subjects have the habit, why we do not know, of suddenly opening their eyes in the very midst of the séance and awakening completely. They seem just as surprised as the operator, but undoubtedly there is some very good reason for this state of affairs. The following case is a good example.

The writer was hypnotizing a young man who gave all the signs of being an excellent subject. Everything went very nicely until the operator said, "I am now going to ask you a few simple questions which you will answer." Immediately, the subject was wide awake, trembling violently with every sign of intense fear. This

was odd, so the operator repeated the séance with exactly the same result.

Then the explanation dawned on him. So the next time, before asking any questions, he said, "Listen carefully. There is nothing to fear. I am in no way interested in your private affairs. I wish to ask you a few very simple questions simply to show that you are in touch with me, that you are listening to me. If you do not wish to answer any particular question, just shake your head, but I assure you that I am not going to ask intentionally any question which could possibly embarrass you. Is that clear?"

He nodded his head and everything progressed in proper order from that point. Obviously it was the proverbial case of the guilty conscience. The subject feared the operator was going to pry into his secrets and awakened in order to protect himself.

The writer has described the hypnotic technique most used in the psychological laboratory but there are endless variations to this particular procedure, and several other entirely different techniques which are equally effective.

With one approach, for example, many operators prefer to start with the subject's eyes wide open, waiting until he closes them from natural fatigue. So far as the writer can see, it makes very little difference if we start with the eyes open or closed. He prefers to start with them closed.

The writer himself does not usually use the technique he has outlined. He awakens the subject after each test and starts all over again. This is a much slower approach, to be sure, but one which gives the operator ample opportunity to size up his subject and adopt his attack to any peculiarities the subject may have. We will see later that, on occasion, subjects do strange things which can be very disconcerting to an operator. The writer prefers a slower, more deliberate approach because it enables him to meet these peculiarities at the earliest possible moment. But most operators would consider him overcautious.

The writer would not spend more than five minutes at any one séance in this early stage of the game, but he knows of excellent operators who will hammer right along for one hour if necessary in an effort to get somnambulism at the very first effort. And, of course, operators may vary the order of the tests and use different

muscle groups. Speech muscles instead of eyes, inability to move a leg as opposed to an arm, or other substitutions.

But it all adds up to the same thing. If we use the "sleeping" technique the approach is slow, calm, and monotonous. The reader will note a complete absence of many things which popular opinion links with the hypnotist. We have described a procedure which anyone can master. There is no mention at all of "will power," for it has nothing to do with hypnotism. The operator does not dominate the weaker will of his subject and beat him into submission with his "dark, hypnotic eye." Quite the contrary. He does his best to persuade the subject to co-operate, making it quite clear that success is very difficult without this co-operation on the part of the individual in question. We will see later that a subject can very easily be hypnotized against his will, but this, again, has nothing to do with will power on the part of the operator.

We have not heretofore mentioned the famous hypnotic "pass," a hang-over from those early days of hypnotism during American Revolutionary times when Mesmer was passing his "magnetic fluid" into the bodies of his patients, when Benjamin Franklin, with others in Paris, was exposing Mesmer as a fraud.

Nor are there any special, intricate techniques which have to be mastered. Hypnotism has nothing of mystery in its nature. A small corner of science, it is open to all who are willing to use the necessary care in mastering a technique and persistence in applying it.

In America we have been a little unfortunate in our introduction to hypnotism. Most of us have made its acquaintance via the stage and the "professional," whereas in Europe these public exhibitions of hypnotism are generally not allowed. As a result we find there in almost every town of any size some doctor who is an authority on the subject and uses it as needed in his practice.

But with us the medical profession fights shy of hypnotism, knowing full well that any individual who starts using hypnotism in his practice becomes associated in the public's mind with the stage artist. Even his companions in medicine look on him as a little queer, so that in America hypnotism died out until recently so far as medicine was concerned. However, this very neglect on the part of the doctor turned out for the best. It forced hypno-

tism back into the psychological laboratory where the psychologist, with a much greater range of interest than his medical compatriot, has been doing some very excellent work during the past twenty years.

For the time being, however, this public prejudice is still very strong. Yet in late years great advance can be reported. Hypnotism is slowly coming into its own. Johns Hopkins University, the Menninger Clinic in Kansas, and Long Island University are centers of excellent research in hypnotherapy, with many individual psychiatrists using it, mostly in our large cities. Even such examples as the Bridie Murphy case and reincarnation probably served a useful end, in that many of our best authorities were drawn into the argument. The fact that men of such eminence would allow themselves to be freely quoted should do much to overcome popular prejudice.

The writer wishes to present hypnotism to the reader as a branch of science quite divorced from mystery and from the supernatural. Certainly nothing we have presented in our techniques for inducing hypnotism savors of the "black art" and we can assure the reader that the following pages will be just as free of any suggestion of the mystical.

There are many ways of producing the séance, so let us examine a technique at the opposite extreme from what we have described. The stage hypnotist breaks every condition which would seem to be necessary to the psychologist in his laboratory, but, strange to say, he is just as successful as is the true scientist. "The brighter the lights, the bigger the crowd, the better the success," as one professional put it. Obviously, then, quiet and relaxation are not necessary to the induction of hypnosis.

The following is fairly typical of the technique employed by the stage performer. He has the subject stand with his feet close together and proceeds somewhat as follows:

"Stand erect and listen carefully to my voice. Close your eyes. Just imagine that you are a board standing on end. You are a board standing on end and you are falling back. You are falling backward into my arms. Falling back, back, back. Let yourself go. I will catch you. You are falling back, back, back. You are losing your

balance and are falling backward." At this point the subject generally loses his balance and does fall backward.

The operator promptly stands him on his feet again and at once returns to the attack, this time standing in front of the subject. "Look into my eyes and clasp your hands together. Clasp your hands together firmly. Make an effort and put some muscle into those fingers. Clasp your hands together firmly, firmly. Your hands are locked together. Your hands are locked tightly together. You cannot take your hands apart no matter how hard you may try. Your hands are locked firmly together. I dare you. You cannot take your hands apart."

If he is dealing with a good subject the hands will be stuck together and it will be impossible for him to take them apart. So the hypnotist proceeds at once. "All right. Relax. You can take your hands apart. Keep looking in my eyes. Now open your mouth. Stiffen up your jaw muscles. Your jaws are stiff and locked in place. It is impossible for you to close your jaws. Absolutely impossible. You cannot pronounce your own name. Your jaws are locked in place and you cannot pronounce your own name. It is impossible for you to pronounce your own name. All right. Relax."

The hypnotist gives his subject no time to recover his poise, but returns to the attack at once. "Keep looking into my eyes. Stiffen out your right leg. Stiffen it out. Your right leg is stiff and rigid. You cannot move it. You cannot take even one step forward. Your right leg is stiff, rigid, and useless. You are rooted to the ground. You cannot move. All right, relax."

But the operator gives him no time to relax. Immediately he begins on his next move. "Close your eyes. The lids are locked tightly together. You cannot open your eyes. They are firmly closed. You are now falling backward into my arms. Let yourself go. You are falling back into my arms." The subject falls backward and the operator eases him down onto the floor or into a chair, and continues.

"You are asleep. Sound, sound asleep, just as if you have taken chloroform or ether. You are sound, sound asleep. Deeper and deeper. Deeper and deeper. You are sound, sound asleep." The operator continues in this vein for a minute or two, than at once shifts the subject over to active somnambulism.

"Stand up. You are sound asleep, walking in your sleep. Now open your eyes, but remain asleep. Look. There is an elephant standing over there. Here is a gun." He hands the subject a broom. "Now, go stalk the elephant. Remember he is a dangerous beast and you must take advantage of every bit of cover." Thereupon the subject proceeds to creep up on the supposed elephant, hiding behind chairs, tables or bits of scenery until he finally shoots the animal with a loud "bang" and proceeds to examine the corpse.

From this point the professional will probably go through the usual stage procedure, have his subject fish for whales in a goldfish jar, bark all around the stage on all fours, give a Fourth of July speech and finally awaken his very embarrassed subject just as he is about to remove most of his clothes.

It is this sort of thing which has given hypnotism such a bad name with the average American, who always feels that somehow it is linked with sleight of hand and "magic" in general.

We may condemn the stage artist for bringing the subject into such disrepute, but we must admit that he gets results. The reader will also be impressed with the fact that his method of attack stands out in sharp contradiction to that previously described in almost every respect. Those conditions of quiet relaxation on which the psychologist insists are conspicuous by their absence. Nor is he in any way worried about the co-operation of his victim. After the first half minute he runs things his own way, outraging the subject's dignity and good taste in every possible manner.

It is well to bear this stage technique in mind when we consider the real nature of hypnotism in Chapter IV. Most psychologists are unfamiliar with it or ignore it completely. If they numbered one or two of these professionals among their friends, they would not fall into some very common errors as to theory.

The writer has such friends, and, he is happy to add, they conduct their shows in good taste. It would be well for the other "professionals" to do likewise; an outraged public may eventually take action. For, as of 1952, stage demonstrations of hypnotism became illegal in England. Entertainment in this, or any, field should not be permitted to insult human dignity.

The stage operator will vary his technique but his underlying theme is always the same: a high pressure attack which more or

less aims at throwing the subject off balance, then a rapid and continuous follow-up which does not give the subject time to recover himself. But we should note that, for all his extravagant claims, he ends with just the same proportion of somnambulists as does the psychologist—namely, one in five.

The techniques we have described up to the present, with endless variations, represent those most commonly used to induce hypnotism. But there are others. One, for example, simply aims at transforming natural sleep into the hypnotic variety. The method of procedure here is somewhat as follows:

The operator seats himself beside the sleeping subject and begins talking in a very low voice. "Listen to me. I am talking to you and you will answer in your sleep. You will talk to me in your sleep just as you have often heard others talk, but you will not wake up. You are sound asleep but you hear my voice clearly in your unconscious mind." The operator gradually raises his voice, puts his hand on the subject's head to further attract attention, and when his voice has risen to normal volume, say after five minutes, he asks the subject some very simple question, such as "Where do you live?"

In general, the operator has to press repeatedly for an answer. Then, either the subject awakens—and this will occur in four fifths of the cases—or the subject starts talking in his sleep. When this occurs, the hypnotist proceeds as he would with any other somnambulist, has the subject stand up, walk around the room, open his eyes, see hallucinations and finally return to bed with the suggestion that he will sleep soundly until morning and awaken at the usual time. For obvious reasons, this technique is limited in its possibilities for use, yet under certain conditions, as in a hospital, it does present definite advantages.

### *Can You Be Hypnotized Against Your Will?*

We have referred to this question in Chapter I, when we mentioned the "disguised" technique. The reader will have noted that when the operator changes normal sleep into the hypnotic trance, the subject has nothing to say in the matter. If we wished, we could quibble as to whether transfer from sleep to trance was

hypnotism "against the will" or only hypnotism "without the consent" of the subject. The subject may definitely refuse to have anything to do with hypnosis in his waking state yet this sleep transfer method may still work. This, it seems, would be against his will.

There are certain places in which hypnotism might be used, where it would have to be employed without the consent of the hypnotized. Such would be the use of hypnotism in the detection of crime or in warfare. A prisoner in jail or after a battle certainly would not willingly co-operate with the hypnotist if he knew the operator was after information which might send him to the electric chair or which would put him in the light of a traitor to his country.

So here we employ the disguised technique. We hypnotize the subject without his realizing what is happening. We ask his co-operation in a harmless little psychological experiment using some piece of psychological apparatus as a front behind which to work. Perhaps the simplest is the device for measuring blood pressure. We explain to the subject that we wish to test his ability to relax, and we can measure this by his blood pressure. That sounds very reasonable so we fix the rubber band on his arm, tell him to close his eyes and relax all his muscles.

We further explain that, of course, the deepest form of relaxation is sleep, and that if the subject can fall asleep it will show that he has perfect control over his nervous system. Then we proceed to "talk sleep" much the same as in hypnotism, being careful to avoid any references to trances, séances or hypnotism, and omitting all tests except one. After five minutes, during which period we have checked several times on the blood pressure to keep up the delusion, we tell the subject that we would like to see if he can talk in his sleep, since this represents the very deepest form of relaxation. If he does, he is in deep hypnosis. If he does not, no one is any the wiser as to what has actually been taking place. We repeat this little experiment several times until we have obtained results or convinced ourselves that no results are to be obtained.

The writer thinks he is the first one to have focused attention on this "sneak attack." His primary interest has always been the military use of hypnotism, and such a device is absolutely necessary

in this field. In late years this method of hypnotizing has been further perfected by such men as J. M. Schneck and M. H. Adler. Of course any claim to priority in the field of psychology is always open to question, so the writer leaves the matter there.

Should the authorities ever decide to use hypnotism extensively either in the detection of crime or in warfare, this disguised technique may prove extremely valuable. Not only is it just as effective as any other mode of attack, but it is of such a nature that very few laymen would recognize it as anything other than what it purports to be, namely, an experiment to measure ability at relaxation. Moreover, the apparatus used can be varied indefinitely. The so-called lie detector provides an excellent screen behind which to work. The writer finds that an ordinary watch with which to take pulse rate as a measure of relaxation is also satisfactory.

The previous paragraphs illustrate another very important point in any consideration of hypnotism. Science is eternally on the move, questioning, probing, inquiring. The truth of yesterday may be false today. Many of the earlier hypnotists, writing around 1900, were quite definite in their assertions that no one could be hypnotized without his co-operation. They were just as sure that hypnotism could not be used for criminal purposes, and they were quite right in so far as they knew hypnotism at that time.

But these early authorities were almost always medical men. Their interest lay in treating the weaknesses of the human machine. To them such questions were merely side issues, and very unpleasant side issues at that. Hypnotism was unpopular, linked in the public's mind with black magic and mysticism. So they tried to protect their use of it by side-stepping these problems. When faced with possibilities fraught with unpleasantness they settled the issue with a few experiments which proved their own point, but which are quite worthless from the viewpoint of modern psychology.

The subject, armed with a rubber knife, would gladly murder his victim. Give him a steel knife, however, and he would recoil in horror. The subject could not be hypnotized when he made up his mind to resist, but was quite easily thrown into the trance when he co-operated with the operator.

We will see, in later pages, that all this proves very little. Hypno-

tism is now investigated in the laboratory by the scientist. He cares very little about popular attitudes toward his subject and insists on a thorough investigation of every question. To be sure, the facts he unearths may be unpleasant. Hypnotism may be a very dangerous thing in the hands of the unscrupulous, but so is the airplane, the rifle, the disease germ. Science wishes to know the facts. Once discovered, these truths are handed over to the public. If that public uses the airplane to drop bombs, rather than to carry passengers, the scientist is not responsible. So with hypnotism. The psychologist seeks to unearth the truth. That is his problem. The use to which his discoveries may be put is something else.

### *The Lazy Man's Way*

Another most interesting way of inducing the trance is by means of the victrola record. The operator simply dictates his technique to the record, plays this back to the subject and the record will put the subject into hypnotism just as well as will the voice of the hypnotist—a very neat example of how little "will power," "passes," and "hypnotic eyes" have to do with the trance. It is about as nonmystical a procedure as anyone could wish.

The writer prepared one of the first of these records with the assistance of the Victor staff and it is now marketed through the Marietta Apparatus Company, Marietta, Ohio. Many others have since made their appearance, all good and generally intended for some specific purpose. It is now so very easy to record the human voice that there will undoubtedly be a great future for this technique. The operator will prepare a definite record for a particular subject, instruct him how to use it and literally apply absent treatment.

This technique has recently become popular in Germany. For practical purposes the writer now prefers the tape recorder. These have lately been developed to a high degree of perfection. The tapes are easier to ship, give longer coverage and can be personalized more readily than the old type of disk.

Yet we must bear in mind that this use of hypnotic records or recorder tapes has definite limitations. The record is excellent for purposes of instruction, which was the reason for its first appearance. It is very useful for experimental work, where the psycholo-

gist in his laboratory wishes to be sure that his subjects are receiving exactly the same instructions as are those in the laboratory of a colleague 1,000 miles away. It can even be used to induce hypnotism the very first time.

But the operator should always be present, for very naturally no record, no matter how skillfully devised, can meet the various emergencies which arise when we induce the trance. Some subjects tend to become hysterical, some even show a disposition to go into convulsions and it is difficult to awaken some others. The phonograph record cannot handle these situations.

However, there may be a real use for this technique after the subject has been hypnotized several times. Then it might be very useful from the medical angle, when the subject is being treated for, say, alcoholism or stammering. The doctor might very easily prepare a record for such a subject, aimed at reinforcing and repeating suggestions already given in the hypnotic trance. Such a record would, of course, be so arranged that it would also awaken the subject from the trance. This could very easily be arranged and would be a great convenience to both subject and doctor. Hypnotism is notoriously time-consuming and any device which could meet this objection might make it far more acceptable to the average medical man. We will deal more fully with these proposals in a later chapter.

There is the question of using hypnotism over the radio and television. While we do not have the slightest doubt that certain members of the audience could be thrown into the genuine trance by a hypnotist using such a means of contact, the whole thing is impractical. The operator is too far removed from his various subjects and should anything go amiss the chances for trouble, including lawsuits, would be great.

It is possible that in future some enterprising company may devote a period to broadcasting health suggestions, which the audience will accept in the relaxed state and which might be very helpful. But this is only a possibility and something for the future. Up to the present nothing has been done. The proposal is open to many practical objections.

In future pages the writer will point out that we are often quibbling over words. Hitler was an excellent hypnotist, and we really

mean that statement to be taken seriously. We will see that his technique was almost identical with that of the stage hypnotist, that the underlying psychology was the same and the results much more effective. To be sure, there were differences but these differences were very superficial. So we do have hypnotism of a very effective type over the radio and television but it bears another label.

### *Drugs*

There has been a great deal of work done with drugs as an aid to hypnosis, all to practically no end. It would seem reasonable that any good anesthetic, say ether, should make almost any person susceptible to hypnotism since the subject is "unconscious" in both states and so what causes one should produce the other. Actually in hypnotism the subject is far from being unconscious; he is not "asleep" as so many people assume, and all our work with drugs appears to have been wasted effort.

Perhaps drugs may still have a use in lowering resistance to the trance. Some people are very susceptible to hypnosis but, for one reason or another, will not permit themselves to be hypnotized. In certain rare cases it may be advisable to hypnotize these people in spite of themselves. A light anesthetic might cause them to lower their guard, so to speak, or to relax their antagonism. Then the operator might be able to induce the trance state. However, such a proposal is purely in the realm of theory. In so far as we are aware, there has been no extensive successful use of drugs along these lines.

Yet we now have a new development, the so-called "wonder drugs" such as Thorazine and Promazine. With their aid, in 1955, we reduced the hospital population in mental disease for the first time in our history. It would seem that these "tranquilizing" drugs might be of use in helping to hypnotize, but as yet practically no work has been done in this field.

The writer has come across another curious proposal for the induction of hypnotism. We have all heard a great deal about jujitsu, the famous Japanese technique of wrestling. It has been often reported that these experts were able to produce unconsciousness simply by pressure on a certain neck nerve. There

seems to be no doubt of this and one of the writer's friends worked with a jujitsu man on this lead. But apparently unconsciousness produced by such a means has nothing to do with the hypnotic trance. After all, there is no reason why it should, any more than any other form of unconsciousness such as that caused by a blow from a baseball bat or a boxing glove.

### *"Animal" Hypnotism*

Still another intriguing possibility is the so-called animal hypnotism. We know that all animals from insects right up to apes can be "hypnotized," and this appears to hold for every individual animal of any given species. Man is an animal, so why not man? It would appear that this animal hypnotism, or catatonic immobility as it has been termed, has something to do with fear. The accepted way to hypnotize a sheep, for example, is suddenly to pull its legs out from under it, hold the animal firmly on the ground, then gradually relax the pressure. The animal will remain quiet for up to half a minute, then will recover with a jerk, shake itself and trot away. The same general technique applies to other animals.

But, unfortunately, the human stands in a class by himself. No one has yet discovered how to use the technique of animal hypnotism on man. He simply does not respond to these methods. And it really does not make very much difference, because psychology has now decided that animal hypnotism is something totally different from human hypnotism. We will see later that even the great Russian scientist, Pavlov, made the mistake of considering them identical, as have many others, but our latest research would indicate they are quite different.

For example, that sheep will show no "practice effect." It is just as easy to hypnotize him the first time as it is the fiftieth time. Worse still, the effect wears off. The first time he will remain hypnotized for, say, half a minute, the fiftieth time for two seconds. This is directly contrary to what we would expect in human hypnotism. The best late work in this field has been done by F. L. Marcuse and H. Hoagland.

The scientist explores every possible lead. One of our foremost physicists discovered that if fish were placed in a magnetic field

they would promptly become immobile, with the nose toward one pole, tail toward the other. This looked like animal hypnotism and a possible technique for human hypnotism. But once again it did not work, this time because of the difficulties of making a suitable apparatus.

The successful hypnotist must be somewhat of a fatalist. The laws of nature are not to be changed by any human ingenuity. In so far as the induction of hypnotism is concerned the law is one in five, at least in the present state of our knowledge. One out of every five subjects will, on the average, go into deep hypnosis or somnambulism and no operator, whatever his skill, can better this average.

Nor does it seem to make very much difference what method is used. Needless to say, skill plays a large part in hypnotizing but, granted an experienced operator, results will be very much the same. A good subject can usually be hypnotized by any operator using any method. We will see later that there are curious exceptions. Also, by using the posthypnotic suggestion, it is very simple to arrange matters so that the very best subject cannot be hypnotized by anyone else with any technique. But our statement still stands as does also the statement that many individuals cannot be hypnotized by anyone, no matter how skillful the hypnotist or how hard the subject may try to co-operate.

Needless to say, it would be of great advantage if we could discover beforehand who these very susceptible people are. The operator would then save himself much wasted effort. Unfortunately it cannot be done, at least in the present stage of our work. We know of no tests which will foretell with any degree of accuracy which individuals will develop into really good subjects. Much work is being tried along these lines and some research has yielded promising results, such as that at the Harvard Psychological Clinic. The fact remains, however, that we cannot as yet use any tests here with anything like certainty.

### *Time Savers*

We can, however, save ourselves a great deal of work if we follow certain leads. In general, the individual who talks in his sleep will be a good subject. The person who walks in his sleep,

the "natural" somnambulist, will almost always go into "artificial" somnambulism or deep hypnosis. The feeble-minded are notoriously hard to hypnotize, as are also some classes of the insane, such as the schizophrenics. But the hysteric, on the contrary, is generally a very good subject. Children between the ages of seven and twelve are excellent, the proportion here running as high as four in five, as opposed to the one-in-five average of normal adults.

Psychologists have been struggling with this problem in recent years, but their research will mean very little to the layman. For example, one psychologist writes on the oximetric analysis of blood in the peripheral veins, the proportion of oxygen in this blood. Another is interested in infrared radiation from the hypnotic subject. A third has studied the relation between repression, frustration and hypnotizability. Results in all cases are very unsatisfactory. In short, we do not have a reliable test of hypnotizability.

This leaves us with no means at all of judging the susceptibility of the average adult. But we can still do considerable to save ourselves time and trouble. We can use some of the simplest tests of hypnosis as indicators. For example, the "sway" technique helps us. Here we really borrow from the stage hypnotist. The subject is asked to stand erect and we attach to the top of his head a device of strings and wires which measures accurately the sway of his body. Then we ask him to close his eyes, suggest to him that he is falling backward and get an accurate measurement of just how far he does sway. The speed and extent to which he accepts these suggestions give us a fairly accurate picture as to his possibilities as a subject.

Another rapid way of picking the good subject, in the absence of any equipment, is simply to use the test of clasping the hands, as mentioned previously. We begin by requesting the subject to clasp his hands firmly together, and to imagine as vividly as possible that they are locked together, that he cannot take them apart. We reinforce this by our own suggestions that the hands *are* locked tightly together and once again the difficulty he has in parting his hands gives us a fairly good cue as to what will happen with more advanced tests.

However, the writer finds that the best way to discover good subjects is by using group hypnotism. He takes a group of about

a dozen individuals who wish to co-operate, seats them in chairs, tells them to close their eyes and proceeds to talk sleep. Then after a couple of minutes he dares them to open their eyes, and notes results. The entire group is told to awaken—just a precaution as almost never will anyone go into trance at such short notice—and next the operator asks them to clasp hands, following this by the usual challenge. Then he stiffens out the arms of the entire group and dares them to relax the arm muscles. Finally, he starts their hands rotating and defies them to stop the movement. After each test, of course, he assures himself that everyone is wide awake.

The experienced operator can easily pick the good subjects with such a technique, and have the whole thing over in ten minutes. He observes these individuals who are continually in difficulty when he challenges the group or who are too relaxed even to make an effort. These he notes as future good subjects and dismisses the group when he wishes. The only real difficulty here is one of discipline. The whole procedure is pretty certain to strike some member of the group as being very funny, but a little experience will soon enable the operator to handle these situations without offense to anyone.

A lazy man's way of handling this matter of group hypnosis when searching for subjects is to use the victrola record. The operator may either make one for himself or use one of those supplied by the houses which handle psychological apparatus. It is very easy to get co-operation from a group with one of these records. It is impersonal and looks much more like a genuine psychological experiment, at least to the layman. Once again, with practice, it is a simple matter for the experienced hypnotist to watch the group and pick out the good subjects on the basis of how they behave to the record.

Some persons are so extremely susceptible to hypnotism that at times we get curious results even when using a record. The writer recalls one such incident. He had a group who wished to listen to his record. They knew very little about hypnotism but had heard that this marvelous gadget, just on the market, would actually hypnotize.

They were all seated comfortably, the writer reached for the record—and it wasn't there. A colleague was using it in another

building. So he took the first record in sight, put it on the victrola and said, humorously, "Now listen to that."

Returning five minutes later he was astonished to see that one of the group was evidently going into deep hypnosis. So he turned the record over and remarked, "That will do the trick very nicely." And it did. The subject was deeply hypnotized and had to be awakened by the usual method. The record in question was a Swiss yodeling song! The man expected to be hypnotized, was an excellent subject, and his own imagination did the rest.

In short, some people are very susceptible to hypnotism, some just the opposite. In an article, "The Possible Antisocial Use of Hypnotism" (1955), the writer made the flat statement that everyone could be thrown into the deepest stage of hypnotism by the use of what he termed the Russian method—no holds barred, deliberate disintegration of the personality by psychic torture, and hypnotism only at this point. The subject might easily be left a mental wreck but war is a grim business. Needless to say, the writer has not tried it, nor, to the best of his knowledge, has anyone else in America.

The tests which we have suggested to aid in detecting those individuals who will go into deep hypnotism, are, however, only bits of the hypnotic technique itself. As we mentioned before, there is no sure way of telling the good subject, except by actually using hypnotism in some form or other. Contrary to general opinion, susceptibility has nothing to do with a "weak will." Neither has it any relation to intelligence. In actual practice it is much better to deal with highly intelligent individuals. They will get the knack of the thing and co-operate more quickly than others.

Nor has hypnotism anything to do with the sex of the subject. Many people have the idea that women, especially young women, are much more easily put into the trance than are men. Scientific research gives no basis whatsoever for such an idea. There appears to be little, if any, difference.

We will mention here another point to which we will later return. Group hypnotism in the popular sense of the word is virtually impossible. No hypnotist, no matter how good, could meet a group of, say, thirty people and hypnotize the lot, unless of course by some weird chance all thirty happened to be good subjects. The

odds against such a chance are very heavy. In other words, the Hindu rope trick is not done by group hypnotism. As a matter of fact it never occurred at all in spite of a great deal of popular legend on the subject. If the reader doubts this statement, and many will, he may look up any good book on magic or consult any stage magician. We give some very good imitations in our modern theaters when the necessary apparatus is at hand, but this could never be duplicated in the open under the blazing Indian sun with the crowd surrounding the juggler on all sides.

The techniques we have described can be mastered by almost anyone, just as almost anyone can learn to run an automobile. To be sure, some people turn out to be much more expert drivers than others, but there is certainly no mystery connected with driving the auto. This does not mean that everyone should learn to use hypnotism or should, of necessity, be permitted to use it if he did learn. That is quite another thing. We simply say it is possible for anyone to learn and stress this point because of popular notions of will power, the dark hypnotic eye, black magic, and other weird ideas.

Finally, many readers may question the wisdom of being so very frank on this matter of inducing hypnotism. We reply that the danger is quite imaginary. The average layman cannot use hypnotism because he has neither the time nor the interest. A mastery of technique demands hard work, and the process of hypnotizing is notoriously boring and tedious. One must have more than a mere passing interest in the subject if he is to settle down to really master hypnotism.

In a later chapter we discuss the dangers of hypnotism, especially in connection with crime. Here, again, the point is largely imaginary, and the reader is asked to reserve judgment until we discuss such questions. The writer will contend that hypnotism can be used for criminal ends, but such use would demand an operator of the highest skill. For any amateur such attempts would only lead to prison. Moreover, our police are quite familiar with everything written in this book and could detect a crime involving hypnotism quite as readily as any other. This may come as a revelation to the reader but, for example, our own Federal Bureau of Investigation knows more about possible criminal uses of hypno-

tism than anyone else in the country. So we may safely leave this aspect of our problem in the hands of the proper authorities, who are quite capable of handling it. The scientist is interested only in facts. How these facts will be used is a question which he is not called on to answer.

The reader is asked to bear in mind that one chapter devoted to the induction of hypnotism is scarcely enough to cover all the fine points. Should he wish a thorough discussion in somewhat technical language, there are several good books. Another recent publication, *The Hypnotherapy of War Neuroses,* by J. G. Watkins, treats the subject very well and in nontechnical language.

A final note. The writer has made the statement that any good hypnotist can hypnotize any good subject, and by using any method. To the best of his knowledge this is correct. But recently A. M. Weitzenhoffer in an excellent but technical book, *Hypnotism,* disagrees with this. The writer recommends this book to anyone seriously interested in the science of hypnotism. But be warned in advance. It is a thorough, scholarly approach to a very complex subject.

CHAPTER III

# *Usual Phenomena in Hypnotism*

We devoted our second chapter to the induction of hypnosis, pointing out that only about one in five of the general population will go into the deepest stage of hypnotism—namely, somnambulism. We will deal here with the phenomena which we find most frequently in hypnotism once the trance has been induced.

In theory we divide hypnotic phenomena into spontaneous and evoked. In actual practice there is only one spontaneous phenomenon, namely, heightened suggestibility. The subject, left to himself, will do nothing, be completely inert. His body is under the control of his unconscious mind, which will take no action until directed by the hypnotist. Everything described from here on is evoked, the result of suggestion. The writer is aware that he may be accused of using unscientific language, that his colleagues may point out supposed exceptions to his sweeping statements. They still stand.

The reader must bear in mind that, while the more striking things which happen are found only in the deepest stage, nevertheless there are many conditions in lighter states which are well worth our attention. We generally accept amnesia or lack of memory as the chief characteristic of somnambulism. The subject has no memory at all when he awakens as to what has occurred in the trance. Yet a great many things may occur with the subject wide awake.

For example, the writer had occasion to use hypnotism with a friend, a good pianist, who did not lose consciousness; but it was quite possible to paralyze large groups of muscles, so much so that he was unable to arise from his chair. The operator asked him to open his eyes, moved the chair close to the piano and made a bet with him that he could not leave it for the next half hour. He played as well as ever, but every time he tried to stand up the op-

erator simply said, "Sorry, it can't be done." That simple suggestion was quite enough to keep him glued to his chair.

The interference with use of the muscles is very easy, even in the light stages. Professor W. R. Wells of Syracuse University has made extensive experiments with "waking hypnotism." This is an interesting point because many of the earlier investigators thought hypnotism was a special variety of sleep, a theory which is now generally rejected.

The writer recalls one of his earliest contacts with hypnotism. A stage operator was demonstrating in the local theater. One of the audience, a dignified member of the community and a deacon in his church, turned out to be a very good subject. The hypnotist had him stand on his head, bark around the stage on all fours, take off a goodly portion of his clothes and give, in general, a very humiliating exhibition. He then awakened his subject who just as promptly knocked him down. The subject had been quite conscious throughout the whole performance but had been unable to resist the suggestions of the hypnotist. He remembered everything that had occurred and was very naturally indignant.

Wells produces his results in "waking" hypnotism with much the same attack as does the professional. A high-pressure volley of suggestions is used without giving the subject time to recover his balance. With this particular technique he does not mention "sleep" and finds that the subject very often remembers everything when he comes out of the trance.

We also know that any good subject can recall consciously everything that has happened when hypnotized when we assure him in the hypnotic trance that he will do so. It is often quite enough for the hypnotist to say, in the waking state, "You will remember everything that occurred in the last trance. Think. It is all coming back quite clearly." The entire series of incidents will then return to consciousness.

This matter of consciousness can be a puzzler. Recently, in his constant search for answers, the writer used waking hypnotism on a subject. It worked exactly as it should have worked. The subject remembered everything that had happened with one little joker. He did *not* remember that, while his attention was concentrated on the writer, a friend, who was also present, had taken

off the subject's tie, turned his coat inside out and removed his wallet. Now was he or was he not conscious?

But while unconsciousness may not be necessary to produce all the phenomena of hypnotism, the fact remains that the somnambulist generally remembers nothing unless we take some special steps to get recall. So we will describe the trance state from now on, using the typical somnambulist as an example.

The key to hypnotism is suggestion. The subject, left to himself, does nothing. The hypnotic state may then change to normal sleep and he will awaken in ordinary fashion, or he may just remain quiet, always open to suggestions from the operator but quite incapable of acting on his own initiative.

This suggestion, by the way, need not be verbal, although that is the usual type. Any form of suggestion is quite satisfactory provided the subject understands what is desired. For example, if when the hypnotic trance is under way we take the subject's arm or hand and mold it into any gesture, then hold it there for a second or two the subject will conclude that we wish this sort of thing. No word need be spoken. With a little practice we will get "waxy plasticity" wherein the subject's limbs can be molded like wax into any position, no matter how uncomfortable, and will remain in the shape we have given them.

Moreover, the subject is very quick to co-operate with the operator and at times is almost uncanny in his ability to figure out what the operator wishes. He seems to read his mind and this trait undoubtedly led many of the older hypnotists into wild conclusions as to the ability of the hypnotic subject as a "mind reader."

### *Rapport*

It is a very curious thing that the subject will listen only to the operator; he will receive suggestions from him alone. Others present may talk to him, shout orders and give suggestions, but he ignores them as completely as if they were on the planet Mars. This curious condition we refer to as "rapport." The subject, we say, is in rapport only with the hypnotist.

Here, we see one of those strange contradictions which are so characteristic of the hypnotized person for actually he hears every-

thing which is taking place, but for some curious reason he chooses to do a little acting. He behaves as if there were no others present in the room.

For example, we take a good subject and proceed to show how "mind reading" occurs. The operator conceals his handkerchief, tells the subject to concentrate and locate the object in question. Others are present. They make suggestions and give him orders but he ignores them completely and is at a total loss to find the handkerchief.

Then, the operator whispers to another, but quite loud enough for the subject to hear, "The handkerchief is in the brief case in the study." Apparently the subject has heard nothing but a minute later he goes to the study, opens the brief case and returns with the handkerchief. It can be shown by such experiments that exclusive rapport is not real. The subject always has his ears open to pick up any cue, yet in almost every case the new subject will immediately start on this little piece of fraud.

This illustrates a point we will mention frequently. The subject when hypnotized may be quite a different person from the same individual when awake. He is so anxious to co-operate, to show his abilities, that he may try almost any trick in order to do what the operator demands. Therefore, in many tests, we must keep the subject under the closest observation.

For example, the older hypnotists claimed many remarkable things about hypnotism. One of these was the ability of the subject to raise blisters under suggestion. The standard practice was to put a bandage on the subject's wrist and suggest to him very strongly that the bandage was a mustard plaster which would shortly produce a blister and, strange to say, in many cases the suggestion was successful. An actual blister might not always appear but the skin under the bandage would become inflamed and red, blood appearing in many cases.

Then some experimenters became suspicious. They left the subject in the room by himself but kept him under close scrutiny through a peephole. It was then found that the subject, in his great desire to co-operate, was playing tricks on the hypnotist. He would deliberately rub the bandage with all his strength so as to irritate the skin beneath. Worse still, some subjects were seen to

take a needle, thrust it in under the bandage, and break the skin in this manner. Yet, when awake, these same subjects were models of honesty and even when questioned in hypnotism they would deny all knowledge of trickery. So we have to watch the subject very closely in many experiments. The mere fact that he claims to be in rapport only with the operator means nothing. It is just a little pose which, for some reason, he feels bound to maintain.

Another curious thing is that we can shift the rapport very easily. The operator merely says to the subject, "Listen carefully. Mr. Smith is here in the room with us. I am going to shift the control to Mr. Smith. He is standing in front of you. I will repeat the first five letters of the alphabet, a to e. When I get to e, Mr. Smith will be in charge. You will listen only to him and accept only his suggestions." Under these conditions Smith now becomes the operator and the subject will treat him as such until he chooses to hand back control to the original hypnotist.

So easy is this trick that we can even shift control from a victrola record to any chosen operator. We simply work the suggestion into the victrola record, using exactly the same formula as given above. The operator then takes over control from the record, treats the subject as he would any somnambulist and awakens him whenever he chooses.

The mesmerist or magnetist of one hundred and fifty years ago did even better. He would magnetize a tree! In future, the subject had only to touch the tree and he would go into the mesmeric trance, receiving all the beneficial effects of the magnetic fluid from the tree in question. Many of these old practices seem pretty weird but we must remember that science was then in its infancy.

Yet many strange things can happen. Consider this trick of shifting rapport. I say to a subject: "You will watch the X-Y Show on television at 8:00 tomorrow night. At about 8:15 Jones will come on. You will immediately be hypnotized. At one point in his talk he will say 'I would suggest that . . .' This is the key phrase. Whatever follows is a posthypnotic suggestion directed at you personally. When he leaves, you will awaken." Think of that as a setup for a who-done-it and don't be too sure it wouldn't work. We will discuss such things in a later chapter.

*Hallucinations*

Perhaps the best known of all hypnotic phenomena are the so-called hallucinations. The reader will be familiar with these if he has ever seen a stage demonstration of hypnotism. He will recall that the subject, following a suggestion by the hypnotist, will see an elephant or a tiger on the stage and will hunt it using a broom for a gun. The operator will put a goldfish bowl in front of him, tell him it is the Atlantic Ocean, equip him with a fishing line, and tell him to fish for whales. Actually this would be more in the nature of an illusion but they are so close to hallucinations that we will treat all under the same head.

These hallucinations of sight, or visions, are very easy to get in any good subject and like everything else in hypnotism they depend on suggestion. The hypnotist simply tells the subject to open his eyes. Then he says: "Look. The door is opening and a black dog is coming into the room. His name is Rover. Go over and pet him." This he does. The hypnotist adds: "He's probably hungry. Better give him something to eat." The subject glances around, takes a plate from the table, puts a stick on it for a bone and proceeds to feed the dog. All this is done in a perfectly normal fashion which leaves very little doubt in the spectator's mind that the subject thinks he is dealing with a real dog.

The hypnotized person will treat every hallucination with great reality. Tell him the dog is friendly and he will pet it, but say the dog has bitten him and he may retreat in fear. Or he may seize the dog by the neck and throw it out the door; the type of reaction depends on how the subject would normally behave. Suggest to the subject that he is watching a football game and he will cheer on his favorite team in very convincing fashion. Tell him he is in a cathedral and he may kneel; say that the police are coming in the front door to arrest him and he will try to leave by the back.

What we obtain depends largely on the type of individual. The writer has a favorite trick of telling the subject there is a "galywampus" in the room. Of course, neither the subject nor the operator has ever seen such an animal, so it is very interesting to note what will happen. Some subjects will simply look puzzled and refuse to answer. Others, realizing the joke, will grin and say,

"There ain't no such animal," or pass it off with some such remark. But others will rise to the occasion in noble fashion. Some years back one subject described it as "a pink elephant with wings, a trunk on both ends and bowlegged." Asked what noise it made, he replied, "That depends. When you mention Roosevelt's name he laughs like a human but if it's Willkie he just looks sad and sighs." Needless to say the subject was a good Democrat, had a vivid imagination, and was using it.

The reaction to these hallucinations brings out a very important point. The hypnotized person is still an individual, not a tool, and behaves according to his own background. Place a glass of water in front of the ardent prohibitionist, tell him it is whisky and that he must drink it. Generally he will refuse. Insist and he may become very angry, even awaken from the trance. Place that same glass before another subject who has no such scruples and he will drink the water with great relish.

Tell a communist he is talking to a political meeting and that he is to defend capitalism. He will probably do just the opposite, criticizing his audience and their views in no uncertain fashion. The subject is always willing to play a part, provided it does not go against any deep-seated convictions. But when we suggest an act which is in conflict with any of these, he may become very obstinate. We will discuss this in a later chapter devoted to hypnotism and crime.

It is quite easy to hallucinate any of the senses, but not always quite as spectacular as in the case of vision. Hearing, for example, lends itself very easily to this approach. We can have the subject listen in rapt attention to a supposed symphony concert, describing every number and criticizing the way in which each is played. It is possible to have him listen to a political talk and then describe it afterward, for example one by the President. The experience will be very real and he will stoutly defend his views at a later period—this in spite of the fact that the President *was* on the air at exactly the time when the subject was supposed to be listening but gave quite a different address. After all, the subject contends he heard it and certainly believes his own ears!

With some of the senses we can obtain a curious mixture of hallucination, illusion, and anesthesia. It is quite possible to give

the subject a glass of lemon juice, tell him it is very fine wine, and have him drink it. He does so with great satisfaction. Or we can reverse the process. We can give him a glass of wine, tell him it tastes vile and that he will be very sick to his stomach once he drinks it. Probably that will also work.

Such a technique was once in great favor for treating alcoholics. If the subject proved to be a somnambulist, he was assured in hypnotism that every time he took a drink in future he would be violently sick. If it worked, and it generally would, the cure became an endurance contest with everything in favor of the hypnotist. After all, drinking is not much of a pleasure if every drink is only the prelude to a vomiting fit. G. B. Cutten in his *Psychology of Alcoholism* deals in detail with this matter of treating the drunkard. In recent years K. Kallenberg, of Sweden, claims eighty per cent of cures in cases of alcoholism, while I. H. Schultz states that he gets sixty per cent in narcotic drug addiction. The group at Long Island University in this country are doing good work in this, as in every other branch of hypnotism.

It was once common practice to handle tobacco addiction by the same method. The subject was assured that tobacco smoke would in future taste very bad and a cigarette would be followed by an upset stomach. This was really hallucinating the senses of smell and taste. A friend of the writer tried this on a young man at the request of his parents but unfortunately he did not ask the consent of the subject beforehand. Once his victim heard of the plan he was very indignant over the whole thing, swore he would smoke in spite of any hypnotist and went at it again. In six months time he was smoking with reasonable comfort, but he almost ruined his digestion in the process.

Smell lends itself very nicely to hallucinations, one of our best tests of hypnotism coming in this field. If we have any doubt as to whether the subject is deeply hypnotized, we tell him he is about to smell some very fine perfume. We then hold a bottle of strong ammonia under his nose and tell him to sniff; if he is in deep hypnotism he seems to enjoy the perfume, but if not, or if he should be bluffing, he will come out of the trance in very short order.

We also have some very curious cases wherein we can deceive the skin senses. For example, we can take a pencil, hold it near the

subject's hand, and tell him it is a red-hot poker. If we touch the hand, he will draw it away, sometimes shrieking with pain. Actually, we have never been able to prove that the skin is really "burned" by this technique, although some of the older authorities did report just this. Proof in science, as we will later see, is no simple matter. We refer the reader to an article by F. A. Pattie on the production of blisters by hypnotic suggestion.

While on the sense of touch, let us report a very interesting experiment by Liébeault, the real father of modern hypnotism. He had one exceptionally good subject of whom he told the following. He traced letters on this man's forearm with the blunt end of a pencil. Later these letters would appear as letters in blood! Not only that, but with this subject he carried the experiment even further. The subject was able to do it himself, suggesting to himself—autosuggestion—that the blood letters would appear! Liébeault stresses the fact that such remarkable phenomena could only be obtained with the very best of subjects.

Liébeault did his work around the 1870's and no other operator since has been able to get these results. This tends to cast a doubt on the experiment since Liébeault may not have been careful enough with his subject. It is quite possible that, if left alone, he could have scratched his arm with a needle along the lines of the letters. Yet, strange as it may sound, there is no reason why these results could not have been obtained. They would depend on the action of the autonomic nervous system and we do know quite definitely that we can influence this by means of hypnotism.

### *A Little Theory*

We have two nervous systems in our bodies. All our voluntary muscles are controlled by the central nervous system, composed of the brain and spinal cord, but our internal organs also do their work by muscular action, in many cases. The lungs, heart, stomach, even the arteries and veins, could never function if it were not for the activity of muscles, and these "involuntary" muscles are under control of the autonomic nervous system. This system lies outside the spine and, although joined to it, acts in general quite independently of the other system.

For example, try to influence the beat of your heart as you read

this book. It is almost impossible. Yet, strange to say, we can influence the heart through hypnotism. We can make it beat faster by mere suggestion, especially if we tell the subject he has, say, just escaped from a bear and is very much excited. Excitement, as we all know, tends to make the heart beat faster and the scene we suggest to the subject is so real to him that he behaves as if it were a real bear. Yet very few of our readers could imagine such a scene vividly enough to get any real reaction. The writer once saw a stage hypnotist suggest to a subject that he was falling over a cliff. He was actually falling from a table onto a pile of cushions. The subject gave a wild shriek of fear as he fell and collapsed. *That* was genuine indeed. A doctor and heart stimulants were necessary to save his life.

Nor could most of my readers, by imagining that they were eating some very disgusting dish, make themselves vomit. Here again the hypnotist can influence the autonomic nervous system, as seen in the action of the stomach. As we mentioned before, we have only to suggest to the somnambulist that liquor tastes bad, that it is disgusting and in future he may find that even the smell of liquor will make him sick to his stomach. Not only that, but we can influence the subject's stomach in much more subtle fashion. We can, for example, suggest to him that he is eating a beefsteak. Not only will his mouth water but we will find that his stomach secretes the proper juices to handle the meal in question. For a very sane and critical discussion of all these rather unusual phenomena we refer the reader to the work by Clark L. Hull of Yale University, *Hypnosis and Suggestibility.*

A Russian psychologist, K. I. Platanov, reported an even more interesting stomach experiment. He claims that in hypnosis he gave his subjects large quantities of alcohol, with the suggestion that they would not get drunk. And they did not, either in hypnosis or after the trance! We may add that before such claims could be accepted they would have to be checked on by many other operators.

However, some excellent and reliable work has been done recently in this field of autonomic control. For instance, N. Antoni reports an increase in urine as a result of hypnotic suggestion; Schultz an increase in blood pressure; M. V. Kline and H. Guze of

Long Island University find a sharp decrease in bodily temperature. W. S. Kroger in Chicago and M. Abrahamson in Minneapolis use hypnotism in all phases of obstetrics, which in many cases assumes control of the autonomic nervous system.

At this point a very natural question will occur to the reader. Why all this doubt and uncertainty? If we are in doubt, then why not clear the matter up at once and in short order. Unfortunately hypnotism of all subjects does not lend itself to this offhand treatment. For example, let us take the question of muscular strength In hypnosis. N. C. Nicholson investigated this, using the ergograph, an instrument designed to measure the amount of work a subject can perform with one of his fingers. It is easy to measure the work of a finger and what applies to the finger should, in theory, apply to any other group of muscles. Nicholson conducted a series of experiments and concluded that "during the hypnotic sleep the capacity for work seemed practically endless."

But later P. C. Young repeated Nicholson's experiments and found, at least to his satisfaction, that muscular strength in hypnotism was no greater than in the normal waking state. The results would have been far less disturbing had either of these men been poorly trained and incompetent. But Nicholson did his work at Johns Hopkins and Young did his at Harvard. Both were very careful experimenters. The sharp contradiction is hard to explain but, in the writer's opinion, was undoubtedly due to the attitude of the hypnotists. The good subject co-operates in wonderful fashion. Nicholson's subjects realized they were supposed to show an increase in muscular strength and did so. The opposite applied to Young's experiments.

A great deal of our work in hypnotism must always be carried out with this fact in mind, that the subject tends to give what is expected. Returning to this matter of physical strength: many readers have read about the uncanny ability of most subjects to rest with the head on one chair and feet on another, while someone sits on the chest and the subject recites poetry. This muscular rigidity can be obtained in most good subjects, provided the hypnotist makes it quite clear that he expects it.

But if the subject suspects that the hypnotist does not want this result, he will not stiffen up his muscles. For example; we take a

very good subject and tell him that we are now going to give him a very severe physical test, we are going to put his feet on one chair, his head on another, and sit on his chest. Then we say to someone present, "Of course, it's impossible. All this talk about seeing it done on the stage is nonsense. They use fake subjects and magician's tricks."

Now we try to stiffen out our subject, but he knows we do not expect results. So we get none. He makes no effort and sags down in discouraging fashion whenever we try to stretch him between the two chairs. Yet there is no reason why we could not get this exceptional increase in strength. Few readers realize the tremendous strength of the human muscles, when we can really make them exert themselves. A drug named metrazol was formerly used to treat a form of insanity, dementia praecox. This threw the patient into violent convulsions, so violent, in fact, that he often broke his own bones by the sheer force of muscular contraction. This is no wild myth but a grim fact of which every psychiatrist is conscious.

A survey showed, with the aid of X-ray pictures, that twenty-five per cent of all patients undergoing metrazol treatment actually cracked some bones of the spinal column in these savage convulsions. These examples, and we could give many more, will show the reader the tremendous power of the human muscles under certain conditions. So there is no reason why we might not get a great increase in strength with hypnosis.

Then there is another possible explanation. Fatigue is a defense to the body. When we feel tired it is a sign that we have worked hard enough and should stop until the body gets the waste cleared away from the muscles. There seems to be a fatigue center in the brain. If we can paralyze this, the individual will not feel tired, no matter how fatigued. We will see later that with hypnotism we can get anesthesia or lack of feeling in many parts of the body. It may be that this great muscular strength in many cases is due to the inability to feel fatigue once the operator assures the subject that he can do great feats of strength without being tired.

This is one reason why no sane hypnotist would dare suggest to a football player before a game that he was to play the game of his life and would be able to put forth his very best without feel-

ing in any way tired, for in so doing the player might easily exert himself so much that he would die of a heart attack.

A recent article by H. J. Eysenck, in London, England, upholds this viewpoint. He used the ergograph to measure the strength and endurance of one finger. Using hypnotism, he found no increase in strength on the first pull but a very great increase in the ability to keep pulling. The subject felt much less fatigued as he kept repeating that first pull with no time allowed for the finger to rest.

Returning now to this matter of producing blisters in hypnotism. Even if they were produced, it would indicate nothing supernatural. The walls of the blood vessels are under control of the autonomic nervous system. We can definitely influence this system in hypnotism, but not in the waking state. In the case of a person with a very sensitive skin, there is no reason why these vessels could not break and let out blood or blood plasma under the bandage, so creating a blister or actual bleeding. Normally it will not occur so we tend to think of it as unlikely, just as we tend to feel that the subject cannot really increase his muscular strength. But, in the opinion of the writer, there is strong probability that blisters can be produced. He also feels certain that muscular strength can be greatly increased by means of suggestion.

We must again remind the reader that proof in science is often difficult to obtain, and in hypnotism this is notoriously so. There can be no doubt as to hallucinations and no doubt that we can influence the activity of most body organs. But we must suspend judgment on bodily strength and such curiosities as raising blisters. And there are many other things claimed of hypnotism, some accepted and some in doubt.

### *The Pain Killer*

Accepted, for example, is the fact that we can produce anesthesia, loss of sensation, in almost every sense organ. This is most easily seen in the loss of pain, technically known as analgesia. This was a chief use of hypnotism in the early days. An English doctor in India, Esdaile, performed some of the first such operations of which we have record, in 1845. During the course of his long practice in that country he did thousands of surgical operations, about 300 of these being of a major character. Unfortunately or fortu-

nately as the case may be, the use of chloroform was discovered about this time and ether shortly afterward. These drugs are far more certain in their effects and much easier to use than hypnotism, which rapidly vanished from use as an anesthetic.

We have a remarkable example of medical prejudice from these early days. Some hundred years back, Ward reported a case wherein a doctor performed an amputation under hypnotism and the patient was accused of collaborating with the doctor! A recent article by Harold Rosen of Johns Hopkins University deals with this matter of pain-elimination in much more acceptable terms.

We now have many cases where hypnotism is used in surgery, in which the condition of the patient is such as to warrant its use. There has also been much use of hypnotism at childbirth and in dentistry. But the interesting fact is that hypnotism can banish pain. In fact, this absence of pain supplies us with our very best test of hypnotism in those situations wherein it is absolutely necessary to be sure that the subject is not bluffing.

The writer uses a little device known as a variac. This is plugged into an ordinary light socket and it delivers the exact voltage required. The contacts are placed on the palm and back of the left hand, blotting paper, soaked in a saturated salt solution, being used to ensure the very best form of contact. Under these circumstances, fifteen volts would be very painful, twenty unbearable. But a subject in somnambulism can take sixty, even 120 volts, without flinching.

Here we get into the usual argument so dear to the hearts of psychologists. Is it anesthesia or amnesia? Perhaps the subject actually felt the pain, but merely forgot about it on awakening, just as he tends to forget everything else which happens in somnambulism. The question is mostly of theoretical interest, but it serves to illustrate the difficulty of answering many a query in hypnotism. Considerable work has been done on this problem but up to the present the question remains unanswered. The anesthesia may or may not be real but the subject acts as if it were, insisting after the trance that he felt no pain.

Yet it does not have nearly as much importance as the average reader may think. Pain is the doctor's friend, although we as sufferers may not always see this point. It is nature's great alarm

signal. Without doubt hypnotism could completely remove the pain in many a case of acute appendicitis, but that would not prevent the appendix from rupturing. It might only serve to lull us into a false sense of security. Similarly pain may mean many things. Gastric ulcer, kidney disease, rheumatism or an ulcerated tooth. The doctor's problem is not to remove the pain but the cause of the pain.

But let us qualify that statement. We have a late report from Germany covering the case of a seventy-four-year-old woman with malignant tumor of the bladder. There is nothing which can be done so far as surgery is concerned and the condition is very painful. Hypnotism relieves the pain. Under such conditions you can see that its use is quite justified but only under conditions such as this, and also, say, in obstetrics and dentistry where the exact cause is known. Otherwise the doctor will have to be very careful.

For example, two of the worst "killers" in the whole disease world are tuberculosis and cancer, mainly because they give the warning after it is too late. Tuberculosis can be quite easily cured in its early stages, but unfortunately it is a painless disease. We can easily be suffering from an advanced case of tuberculosis and yet be fairly comfortable, beyond a troublesome cough and a feeling of continual fatigue.

Likewise most cases of cancer could be cured in the early stages, if only medicine could locate them. But cancer also uses a painless attack until the disease is well advanced. When we finally go to our doctor with severe abdominal pains and he diagnoses it as cancer, we might as well call the undertaker and get our earthly affairs in order. But don't become too enthusiastic over the possible uses of hypnotism. It undoubtedly has its uses, and we will deal with these in future pages, but the obvious use is often more apparent than real.

We can render any of the sense organs anesthetic. Pain gives us our most marked results but vision is just as easily influenced. We can suggest to the subject in hypnotism that he is blind and to all outward appearance he becomes so. With his eyes wide open he will walk into a chair or make no movement at all when someone pretends to strike him in the face.

Is this blindness genuine or is the subject again staging a little

act? Probably it is a bona fide performance. The subject is really blind, but only in a functional sense. If the reader wants a real brain teaser on this matter of functional blindness or functional deafness, look up recent articles by M. H. Erickson of Phoenix, Arizona, and F. A. Pattie of the University of Kentucky. But he warned in advance: these two men are "scientists" in the strict sense of the word. Their writings are not intended to be light reading.

It might be well to explain what we mean by functional, by way of helping us to understand the problem. We divide human ailments into two broad groups, the functional and the structural or organic. For example, our hospitals for mental disease always contain a large group of insane suffering from dementia praecox, or schizophrenia. This is a functional insanity as there seems to be nothing wrong with the brain. If we examine it after death we find it just as good as any other. We could also find in any such place a number of cases with general paresis, generalized syphilis of the brain. These people are also "crazy." Very much so in fact, and here we would find that the brain had been severely damaged by the syphilis germ.

Thus, with insanity, we have both the functional and structural cases, both insane. But in the former the brain is uninjured; in the structural cases the brain has been harmed by something, be it syphilis, sleeping sickness, tumor, stroke, or what not.

The blindness we get in hypnotism is of the functional type. There is nothing whatsoever wrong with the eyes, yet it is very real for all that. This sounds hazy and mysterious so let us see how a man could be stone blind with eyes and brain just as good as our own. In order to see, hear, feel pain, or experience any sensation at all the action of nervous tissue must be involved. Here the unit is the neuron, the separate tiny telegraph line which nature binds together in the bundles we call nerves.

But these neurons have some very interesting qualities which make them much better than our own man-made wires. The most interesting point about the neuron, from our point of view, is its ability to break contact. Nervous tissue is, of course, all over the body but the brain and spinal cord are the chief centers of con-

centration. Especially in the brain do we have a tremendously complex telegraph exchange.

Literally billions of these tiny wires connect with each other. We call the point of contact a synapse, and here very fine brush-like structures from one neuron come very close to those from another so that the "spark" can easily jump the gap. As we learn anything, from how to run a typewriter to Chinese, pathways are worn through the "gray matter," so that the passage of the nerve current over certain synapses becomes much more easy.

But the reverse of this can also happen. When we "forget" it is a sign that for some reason the pathway we wish to use has become blocked, probably because the little brushes which make contact at the synapses have drawn so far apart that the current cannot pass. It seems probable that in sleep all intercommunication in the gray matter is cut off in this way. Similarly when a person gets "drunk" or is knocked unconscious by a blow on the head. We could also quote experiments with various drugs, such as arsenic, to uphold this view.

Now let us suppose that the operator suggests to his subject in hypnotism that his whole right arm is senseless, has no feeling in it. If the synapses open in those parts of the brain where we feel pain from that arm, then the nerve currents simply cannot register. We have cut off communication just as effectively as if we cut the nerve leading from the arm, yet there is nothing wrong with the brain. Structurally, it is perfect, all the parts are there and capable of working. But they are not working or "functioning" because of this break at the synapses, so we say that we have a "functional" anesthesia in the arm. And this "opening" of the synapses is probably due here to suggestion.

This anesthesia is very real, for all that. No amount of play acting would enable any subject to lie quietly on the operating table and have his arm amputated. Yet this can be done in deep hypnotism. Similarly we can get the functional blindness we have been discussing. In this case it is very difficult to prove that the subject is not bluffing. We have no easy, positive tests, but we can argue from the analogy of anesthesia in the arm. This is very real, so anesthesia in vision is probably just as real. And, of course, there is no "structural" injury to the brain.

The trouble with this very neat synaptic theory is that it is almost impossible of proof, though it seems highly probable. We can see the synapse under the microscope, but we cannot see its movement because this takes place only in living tissue and it would be difficult to get even under the very best conditions. We cannot turn a microscope on the brain of a living animal.

Yet some day we may be able actually to observe these movements in the synapses. Spidell of the University of Virginia has won the highest award from the American Association for the Advancement of Science by demonstrating a very beautiful technique. He was actually able to see the growth of nerves in the tail of a living tadpole! That may strike the reader as very unimportant but science values curious things. A year or two before that, another man got this award by showing that protozoa in the intestines of the termite digested his wood diet for him and so allowed him to live on pure wood! That solved many a problem that had puzzled the zoologist. Some fifteen years back, a psychologist, Maier, won the coveted award by demonstrating that he could drive rats insane by frustration, by continually puzzling them over the location of their food. Silly? That experiment means a great deal to the psychiatrist, the "nerve specialist," who treats the human insane.

So with luck in the near future we may actually be able to see the movement at the synapses through the microscope. At present it is a very neat theory, probably true but incapable of being proven. Yet it shows us how all these curious things may happen in hypnotism and be very real, yet involve no change or injury to the brain. When the psychologist or doctor mentions that word "functional" he is not merely throwing up a smoke screen to hide his ignorance. Functional blindness is a very real thing as thousands of "shell shock" cases from the war can testify.

Similarly by means of hypnotism we can obtain functional deafness or anesthesia of the ear, the organ of hearing. It seems to be very real for the subject is quite unconcerned with even the loudest of noises. He simply ignores them. A little more spectacular is anesthesia of smell. We have already mentioned the fact that in deep hypnosis the subject can inhale strong ammonia without a

quiver. If we suggest it is perfume, he even enjoys the process, and that involves hallucination.

Taste is equally easy to reach, for the subject will chew up and swallow the vilest tasting dishes we can give him if we assure him that he tastes nothing, or even better, if we tell him he is eating a beefsteak. Excellent recent work in this field has been done by N. H. Pronko at the University of Wichita, Kansas.

All these weird things have a sound physiological basis. Everything we shall demonstrate about hypnotism is to be explained and can be explained by the activity of a very complex nervous system. With hypnotism we can cut out entire memories for certain events which have taken place in past years. The surgeon can do the same up to certain limits, but he must injure the nerve centers permanently. We can make the shift with no injury and at far greater speed than any telephone exchange.

### *Acuteness of the Senses*

We have considered the matter of anesthesia of the various senses. How about hyperesthesia? We heard a great deal about this in days past, about the ability of the subject to develop great keenness of vision, to smell the very faintest odors or hear the very smallest sounds. Let us take a typical experiment as reported by Bergson, a French philosopher who was much interested in hypnotism.

He had one very excellent subject, a boy, with whom he could get the most unusual phenomena. Bergson was very much interested in the matter of telepathy or thought transference, and with this boy he proved it to his satisfaction. The subject would stand up facing the hypnotist who would then hold an open book behind the subject's head. The operator would thus be able to see what was on the pages but the subject, of course, could not, unless he had eyes in the back of his head.

Bergson was then delighted to find that the hypnotized boy could read the printed pages which only the operator could see. He had proved telepathy, which was a great achievement. Or had he? Bergson was a very careful investigator. He became suspicious, for the thing worked too well. Then he made an astonishing discovery. The boy was not reading his mind at all but the reflection

of the book in the hypnotist's eyes! The letters on the reflected page would have been about 1/256 of an inch high; in other words, microscopic. Moreover, having once discovered the trick, Bergson had this subject demonstrate with other things, such as photographs reduced to very tiny dimensions. There was no doubt about it. This particular subject in hypnotism had a keenness of vision which was equal to that of a microscope.

Unfortunately, as so often happens when we consider the work of these older authorities, there is the usual joker. No one has been able to repeat Bergson's experiment, and proof in science is essentially a matter of repetition. It is very difficult to say why this experiment cannot be repeated. Certainly no one would wish to accuse Bergson of deliberate fraud. Probably he was not careful enough with his controls; he did not watch his subject closely enough. At any rate, all that modern science can do is reserve judgment and hope that some operator will be able to duplicate his results under proper conditions.

Those of us who are familiar with the older type of hypnotism know of another experiment which bears on this subject of visual acuity. The operator would take, say, twenty perfectly blank white calling cards and tell the subject that he was about to show him some photographs. Then, as he placed these blank cards before the subject, he would stop at one and say, "Look. There is a photograph of your mother. Do you recognize it?"

"Certainly."

"Will you recognize it again?"

"Of course."

The operator made a slight mark on the back of this card so that he would be able to pick it out again. Then he continued to show the rest of the pack.

Next he shuffled the cards, handed them to the subject and said, "Now pick me out your mother's photograph." Strange to say, the subject could do so! The writer has been able to demonstrate this himself and has seen it done by others.

Apparently what actually happens is something like this. The subject realizes that he is supposed to remember that particular card so he looks at the face very carefully and remembers some very trifling difference in the edge of the card, picks out some flaw

in its surface or some trifling difference in texture. When next he looks over the cards he chooses his mother's "photograph" by the card which he thus remembers.

This would not, perhaps, be due so much to greater intensity of vision as intense concentration and an ability to remember some very tiny detail. This is not as farfetched as it may sound. Those of our readers who have had the pleasure (?) of knowing the professional gambler and the opportunity of studying his cards realize with what speed and accuracy he can spot his "marked" cards while dealing hands to four or five persons at once. There is at least one concern in the United States which specializes in the manufacture of such marked decks, the "marking" consisting of some very slight variation in the pattern on the backs of certain key cards. If the average human in his normal state can arrive at such perfection through practice, there is no reason why the hypnotic subject, with his great additional powers of concentration, could not do the same.

We have another interesting type of experiment quoted by the early hypnotists. This involved the sense of smell. They would take the handkerchiefs of a dozen people, allow the subject to smell each one, then mix them up in one mass and ask the subject to return them to their owners. And the subject would oblige! But unfortunately there was far too great a chance for the subject to pick out the handkerchief by other cues, such as the make of the article, or expression on the owner's face, to allow us to accept these old experiments at their face value.

At present the general attitude of psychology on hyperesthesia is "unproved." Very little careful work has been done on this subject in the laboratory. Almost the only good piece of investigation here was by P. C. Young at Harvard and he says that the senses of the subject in hypnotism are no more acute than they are in the normal state. The writer feels that hyperesthesia probably does exist, that Young's negative results were caused by the attitude of the operator, so very important in all this work. But he cannot prove his point.

Moreover, research has just about stopped in this field. Hyperesthesia has as yet no practical importance, is hard to prove, and is very time-consuming as a research subject. It is only natural that

the trained hypnotist will choose other outlets for his efforts, outlets which have greater significance in this very practical world.

It might be well here to explain again just why we have all this trouble about proving a point. Proof in science, especially in psychology, is no easy matter. First, the individual case may mean very little, although even one subject who could demonstrate his ability consistently could do a lot. But in general we must have a group of subjects and this group must be "statistically significant," so that the results cannot be charged to chance. Such a group, to be above criticism, should number at least seventy!

Then we must have a control group who have not been hypnotized with which to compare the experimental group. This should be just as large, of the same sex, and as near as possible the same age, education, and economic status. This control group in a subject like hypnotism is very important because even if we could show that a group in the trance did have very great keenness of the senses, we leave ourselves wide open to criticism. How do we know they could not do the same in the waking state? Try to find out? Not at all, because we might be running into the results of posthypnotic suggestions given without intention on the part of the operator, something we will discuss in the next chapter.

All these precautions may appear nonsense to the average reader but science is a very stern taskmaster. Any psychologist who conducts experiments on too small a group, or on a group which is not checked against a properly selected control group, may have some very rough sledding. Needless to say, the task of preparing seventy somnambulists is a very difficult one. Then we have the problem of keeping strict observation during the experiment. So the reader must remember that these problems cannot be settled overnight with a couple of subjects or by the comfortable "arm chair philosopher" method. There is probably no more difficult branch of research in all science, so please be lenient when we continually say that such and such results are still in doubt.

### *Delusions*

There can be no doubt, however, about delusions, or false beliefs. Do not confuse these with illusions or false sense impressions, so closely related to hallucinations. For example, if we place a

black hat on the table, and say to the subject, "Look. There is a black cat," he will pick up the hat and caress it as he would a cat. It is a false sense impression. But if we say to him, "You are now a dog. Get down on all fours and bark. There is another dog there in the corner. Chase him from the room," he will give a ludicrous imitation of a dog. This is a false belief, although seeing the other dog was an hallucination—neat little points about which it is very easy to become tangled.

These delusions, as we will see later, may be of the very greatest importance, especially when we consider the possible relation between hypnotism and crime in a later chapter. For example, suppose we say to the subject in hypnotism, "You are the President of the United States. I want you to give a political speech." He will do his best to imitate the President and may give an astonishingly good speech. He believes himself to be President, a delusion or false belief.

Now we go a step further and say, "You were in Utica this afternoon between four and six o'clock. You visited the station and while there you saw the President pass through the station on his way to the Hotel Utica. You will maintain this when you wake up." When he awakens, he will stoutly insist against all argument that he was in Utica and did see the President, telling how he got there, how he got back and weaving a story which at least sounds convincing.

Now another step. "You saw the President pass through the station. Then you went into the taproom. There you overheard two men at the next table discussing a plot to assassinate him that evening as he boarded the train for New York City. Here are the pictures of the two men. Be sure you remember them for you will see them again tonight at the Utica station." Once again a delusion, or false belief, mixed with hallucinations and the posthypnotic suggestion, yet one which might make things very bad for two innocent men in Utica.

We carry the delusion a step further. "You followed them into the lavatory. You saw one of them hide this gun in the garbage can. This evening at the station you will give the gun to a policeman and have them arrested."

These delusions can be extremely real and the subject will de-

fend them even when they are quite impossible. We say to a second subject, "You were in the Second World War with the American Army. You then went under the name of Captain G. N. Smith. Remember this when you wake up." When he awakens we bring up the subject of the War. He volunteers the information that he served in it under the name of Captain G. N. Smith. You point out that he is only twenty-five. He would have to be at least thirty-five if his story were true. He maintains he really is thirty-five and then the battle is on. We attack him on all sides, pointing out how ridiculous his claim is. He defends himself with a beautiful series of lies and finally becomes quite indignant when we continue to doubt his word. Of course, here again we run into the problem of whether he is just bluffing, playing a part to please the hypnotist, or really does believe he was Captain Smith in the last war—a very difficult point to decide.

So also are those curious cases which we call "regression" which occur in hypnosis. For example, we take a subject forty years old and say to him, "You are now a boy of five. You will behave and think exactly as you did at the age of five." He gives a very convincing demonstration. We then say, "Now you are ten. Grow up to that age." He does so. Next we have him progress to fifteen. The technique of getting age regression in hypnotism is pretty complicated, but the end results are as described.

Is it genuine? It certainly looks like a case of faking. But strange to say, if we try the "regressed" subject with the intelligence test we find that he hits the proper mental age and intelligence quotient with very considerable accuracy. Of course, it is possible that he could also fake this. But it is very doubtful if any of my readers, unfamiliar with intelligence tests, could give the answers appropriate for a child of five, ten, or fifteen.

In actual practice we accept age regression as a fact. Many able psychiatrists put a lot of time and effort into it, for regression is an accepted technique in hypnotherapy. For a real discussion of this subject we refer the reader to various articles from that very energetic group at Long Island University, among them J. M. Schneck, M. V. Kline and H. Guze. Excellent work has also been done in other centers, both here and abroad. The subject is of great importance.

We read much about the ability which subjects have to reckon time in hypnosis. We can tell them that they will be able to tell exactly when 4,453 minutes have passed and they will call the time exactly. But, once again, this is not proved to the satisfaction of science. For example, one of the older experimenters, Bramwell, working around 1895, stated that one particular subject could actually call the time to the exact minute. But unfortunately he had no control subjects. What assurance do we have that this special subject could not do the same thing in the normal waking state? Ridiculous? Not at all! Try it on yourself. When you are lying quiet and relaxed, note how very steady is the heart beat. If it is sixty-eight to the minute it will not vary more than one or two strokes in an hour. It is a simple matter of counting. If the subject is allowed to awaken, the very strictest watch would have to be kept that he was not counting the ticks on a clock, listening to the town clock or actually consulting his own watch.

In the psychological laboratory, at least up to the present time, we find no evidence that such a capacity can be produced by hypnosis without other aid. J. M. Stalnaker has done the best work here and his results show no increase in ability along these lines. But the writer always remembers that in these laboratory experiments the operator may have a fixed attitude. He may be out to "debunk" hypnotism, the subject realizes this, and helps in the debunking process with all his ability. We have considerable evidence for this in some experiments but only time and much work will tell how important operator-attitude may be.

Sometimes even an experienced psychologist will grasp for positive results prematurely. For instance, L. F. Cooper of Georgetown University wrote an article, "Time Distortion in Hypnosis," in which he claimed that in hypnosis a subject can, in ten seconds, live through experiences that would require a half hour in waking life, and that in, say, violin playing, he can get the practice effects of a half hour! But two later articles by Cooper have cast some doubt on this claim. He is still working on the problem. The whole idea is so fantastic that many research hypnotists, trained to expect the improbable, might laugh it off. But M. H. Erickson takes it seriously and has written an article with Cooper. If Erickson says it merits consideration that cannot be laughed off.

It is very easy to make serious mistakes in hypnotism. The writer has made at least one he knew of, possibly many more. We use in psychology a very neat little piece of apparatus to measure the "psychogalvanic reflex." This measures the resistance of the body to a very small current of electricity, the resistance generally being taken through the hand. It is a very curious thing that this resistance changes under any emotional strain. Suppose it is normally 5,000 ohms. The experimenter pricks the subject with a pin. Immediately the resistance drops to 4,000 ohms, swinging back again to 5,000 after about half a minute.

Equally interesting is the curious behavior of skin resistance in sleep. It will normally go to 40,000 or 50,000 ohms. The writer found in a series of experiments that the skin resistance of a subject when hypnotized also soared to 50,000 ohms. This proved to him that hypnotism and sleep were closely associated. So he published his results—and they were found to be misleading. They were good as far as they went, only they did not go far enough. Other experimenters demonstrated that while this was true for hypnotism induced by the "sleeping" method, it was true only for this method and only as long as the subject remained quiet. The moment he got up and walked around, his resistance became that of the normal waking subject.

Now, of course, the writer should have taken all this into consideration before publishing his results, but man is just mere man. Science progresses by such mistakes. One research worker finds a subject will commit a crime in hypnosis. Another goes out to prove him wrong—and does so to his satisfaction. Then the fat is in the fire until one backs down or scientific consensus proves one wrong. The writer has backed down at least once, may do so many more times, so it ill becomes him to criticize others too severely. The reader must always realize that the writer's opinions on some points, especially in later chapters of this book, are only his opinions. He is convinced that the weight of scientific evidence is on his side, but hypnotism, of all subjects, does not lend itself to dogmatism. We must await very extensive research before we have the final answer to many problems.

Clairvoyance, the ability to see distant scenes, is one such example. Many of the older authorities were quite positive that their

subjects could describe events hundreds of miles away, say in the old home town. The writer has often met amateur operators who would proudly show how a subject could tell just what was taking place in some town of Tennessee or Kansas. But they never took the trouble to check up! F. W. H. Myers in his *Human Personality and its Survival of Bodily Death* seems to have felt that in hypnotism the psychic or supernatural powers of some subjects could be increased.

But modern psychology brings in another verdict of "unproved," and in this case it is highly improbable that it ever can be proved. The reader should keep a clear distinction in his mind. For example, there is not a reputable psychologist in the United States who would dare write an article questioning the existence of hypnotism and certain phenomena in hypnotism. His reputation would be ruined if he were to do so. But in the case of spiritism, and psychic research, the exact opposite is true. No psychologist would dare say that clairvoyance or mind reading, as two examples of such phenomena, have been *proved.* Some, such as J. B. Rhine at Duke University, might say they *believed* in the existence of telepathy, even had a certain amount of evidence in its favor. But proof? That is something quite different. A blunt assertion that the matter was settled to the satisfaction of psychology would find ninety-nine per cent of the psychologists registering an emphatic "no." This applies to all so-called spiritistic phenomena.

We further note that recent work by the group at Duke University interested in extrasensory perception shows that hypnotism has nothing whatsoever to do with the abilities of people along these supernormal lines. So the reader must note that hypnotism has no relation to spiritism or the supernatural. In later pages we will cite hypnotism as an explanation of the trance state of the medium, also of such phenomena as automatic writing, crystal gazing, automatic speech, even talking with the dead. But even so the things we find are interpreted by most psychologists as quite normal, quite within the limits of what might be expected in the usual teachings of psychology. The writer does not go along with this attitude—not entirely. He would simply say that the phenomena of spiritism, of "psychic research" or "paranormal psychology" if we wish to be technical, have been neither proved

nor disproved. The case is still wide open. He defends this viewpoint in his book, *Spiritism.*

We have barely mentioned several of the more interesting phenomena, for example, the famous posthypnotic suggestion and also autosuggestion. These are so very important that we cannot treat them in short space, so we devote the next chapter to their consideration.

Then there is that very interesting question of dissociation, considered by some the key phenomenon of hypnotism. We prefer to deal with this problem in our chapter, "The Basic Nature of Hypnotism," since it is so closely linked with the entire theory of hypnosis.

Also we have avoided mentioning one of the most useful of all hypnotic phenomena, at least from the viewpoint of medicine. This is that curious ability of the somnambulist to recall forgotten childhood memories. This, with regression, is the keynote of "hypno-analysis," a branch of psychotherapy which is assuming more and more importance as the prejudice to hypnotism in this country diminishes.

Associated with this is hypermnesia, wherein the subject in hypnotism or as a result of posthypnotic suggestion is supposed to develop a much better memory for things which have occurred in the immediate past, such as the learning of poetry or of history. We will consider this later, with the possible uses of hypnotism in education.

Other curiosities of the trance we leave to later chapters, such as the ability to form conditioned reflexes and persistence of normal reflexes, all important but best reserved to our chapter on theory.

Will the subject in hypnotism commit a criminal act? Even more interesting, will he confess to crime in the trance state? Obviously these questions involve some very important phenomena of hypnotism. Just as obviously these questions cannot be answered in a few pages so we devote a later chapter to this whole question of the connection between hypnotism and crime.

Here we have presented only the more demonstrable side of hypnotism, things which conceivably could be demonstrated, or disproved, in five minutes with any good subject. Far more im-

portant to psychology are the questions of hypnotism in education, in crime, even its possible uses in war. These, we will see, need to be investigated with long, careful work. Some, indeed, cannot even be studied properly in our present society. The solution must wait for the future. But the past few pages cover most of those things which the layman associates with the word hypnotism. We now pass on to the more unusual phenomena about which the average reader probably knows very little.

CHAPTER IV

# *Posthypnotic Suggestion and Autosuggestion*

WE CAN lay down some rules in hypnotism: that everything we get in the hypnotic trance can also be obtained by means of the posthypnotic suggestion; also, that anything we find in either of these can be found in autosuggestion; and, finally, that everything we obtain in any of the three may be encountered in everyday life outside the field of hypnotism per se. In this latter case we refer to the subject as hysteric, neurotic, or even insane. We will leave the consideration of these everyday cases to a later chapter on medicine.

Let us take a typical posthypnotic suggestion. The operator says to the subject in somnambulism, "Now, listen carefully. After you wake up, I will show you the ace of spades from a pack of cards. When I do this, you will see a black dog come in through the door. He is a very friendly dog, so you will pet him, then you will give him a bone. He belongs to Professor Fowler, so, after you have fed him, you will call Fowler on the telephone and ask him to come get the dog." The operator repeats these instructions and asks the subject if he understands them thoroughly. Then the subject is awakened.

Five minutes later the hypnotist picks up a deck of cards, selects the ace of spades, and lays it on the table in front of the subject. The latter seems wide awake in every sense of the word. He glances at the door and says, "Why, here is Fowler's dog. He looks hungry. Come on in, fellow, and have a bone."

He pats the phantom dog, takes a plate from the table, puts on it an imaginary bone, gives it to the phantom, and continues to fondle it. Then he suddenly says, "You know, I don't believe Fowler knows where that dog is. I think I'll call him on the telephone and let him know."

So he goes to the phone and puts through his call, all the time talking in a perfectly normal manner about his garden, his car

or any other topic of conversation in which he may have been engaged. Fowler, who knows what is happening, comes over for a cup of tea. All the time he is in the room the subject keeps playing with the dog and finally says good-by to the professor and his phantom pet in quite normal fashion.

Such is the typical picture of a posthypnotic suggestion. Some subjects act dazed while carrying out such orders but this is easily corrected by the suggestion that they will be wide awake and perfectly normal during the whole procedure.

M. H. Erickson, in a recent article, states that the posthypnotic suggestion alters the subject's ordinary behavior. Bramwell, an older authority, claimed that we were dealing with a new state of hypnotism, or a different kind of state resembling hypnotism. Erickson would seem to agree with this statement of Bramwell's which the writer cannot accept. The argument could get involved, so we simply note this disagreement in passing, because of Erickson's well-earned fame in the field of hypnotism.

Let us examine posthypnotic suggestion more closely, for as we will see later it explains a great deal in abnormal psychology. It is a curious thing that the subject does not have to be in the deepest trance or in somnambulism to get the posthypnotic suggestion. To be sure, it is much better if we start off from the deep state, but not absolutely necessary. We say to a subject still in an earlier stage of hypnotism, "After you awaken, I will tap three times on the table with my pencil. You will then have an irresistible impulse to take off your right shoe." Then we awaken him and find out that he remembers everything. Nevertheless we tap three times on the table and at once there is clear evidence of an inner conflict. He wants to take off that shoe but has made up his mind he will not. Like one possessed of a devil, he runs his hands through his hair, shakes his head, gets up and walks around the room muttering to himself, "I won't. I won't do it."

Finally the strain becomes too great and he says, "Oh! All right, then. Have it your own way." He takes off the shoe and sits down looking vastly relieved. While we can get this reaction in some subjects who do not enter somnambulism, in general they can fight off the suggestion. They still show evidence of a desire to carry out the order, but will sit still, grit their teeth, smile trium-

phantly and say, "No." And in most of these cases "no" means "no."

At this point, we should mention a very necessary precaution which should be taken in all this work. The subject must never leave the room until the suggestion has been removed. There are two ways of doing this—re-hypnotize the subject and remove the suggestion, or, far easier, have him carry it out with his own consent. Simply say, "Very well. That test failed but I want to make sure that we have no trouble with it in the future. Take off your shoe and put it on again, just to clear the wires."

A doctor friend reports a very interesting case which happened to him twenty years ago. A patient came complaining that he was being followed by a big, black dog. The patient knew quite well that there was no dog around, but he could not escape from the delusion that this dog was always at his heels. The doctor worked with him for a week with no success. Then the patient himself gave the answer. A stage hypnotist had been in town. He had volunteered as a subject, went into a deep trance and remembered nothing of what happened until he was awakened at the end of the show. But the next day this dog delusion started and had been with him ever since.

The doctor found the answer in short order. He learned from his patient's friends that the subject, the night of the show, had kept the house entertained by running around the stage for half an hour pursued by a big, black dog. He was one of several subjects and this was his "stunt." He was hypnotized again, the posthypnotic suggestion was removed, and, after a couple of séances, he finally got rid of his phantom dog.

One of the real dangers of hypnotism lies right here. We may easily instill in the subject's mind some conflict, without in any way intending it. One of the best operators reports the following case. The subject, in deep trance, was told to drink a glass of whisky. He was a prohibitionist, had never tasted liquor and refused. But the day after the trance, he told the hypnotist, that, for some unknown reason, he had developed a crazy idea of entering every saloon he passed and having a glass of whisky. The operator said nothing, re-hypnotized the subject and this time took care that he removed all posthypnotic suggestions.

The best procedure is as follows. After each trance, if any post-

hypnotic suggestions have been given, explain to the subject in the waking state just what has occurred. Then assure him that the suggestion in question has now been completely removed. If he has any hint of its still persisting, he is to get in touch with the operator at once. With experience the hypnotist will never have any trouble along these lines, but he must always realize that he must exercise great care.

### *Hypnotism and Psychoanalysis*

Freud, the great founder of psychoanalysis, was thoroughly familiar with hypnotism. He translated Bernheim's book into German, and studied under both Bernheim and Charcot. But he rejected hypnotism as a means of treating mental illness. Of late we see a curious marriage of these two techniques, in hypno-analysis and hypnotherapy. We shall illustrate this new trend in the following pages and chapters. These two former enemies are being joined in very close wedlock and the marriage looks permanent.

There are two outstanding facts about these posthypnotic suggestions which link them very closely to the so-called Freudian "complex." First, these suggestions, as do those in hypnosis proper, have a very curious compulsive force. When given to a subject in somnambulism they simply "must" be carried out.

The writer recalls one very interesting example from his graduate work at Harvard. Professor William McDougall was always greatly interested in hypnotism. Under his leadership some very valuable research work was always under way. On one occasion a group was gathered in his office. One graduate student was an excellent hypnotic subject and the professor hypnotized him. Before awakening the subject, McDougall said, "When I light my cigarette, you will take the ace of spades from the pack of cards on the table and hand it to me." Then he awakened the subject and later lit his cigarette. This subject was greatly interested in hypnotism and quite familiar with its use. He at once reached over for the pack of cards, then suddenly stopped.

"Do you know," he said, "I believe that is a posthypnotic suggestion."

"Probably," McDougall replied. "What do you want to do?"

"I want to give you the ace of spades."

"That's right. It *is* a posthypnotic suggestion. What are you going to do about it?"

"I won't do it."

"I'll bet you fifty cents you will."

"Taken."

Then came a very neat demonstration of the compulsive power of the suggestion. The subject was obviously in difficulties. Extremely restless, he kept drifting toward that pack of cards, then pulled himself together, sat down only to be on his feet again in a minute's time wandering around the room in a most unhappy fashion. But he did resist and at the end of an hour and a half he collected his fifty cents, wiped his brow, and left the room.

But his troubles had only started. McDougall had purposely omitted removing the suggestion. The subject had a great deal of work to do but simply could not settle down. He was haunted by the ace of spades. Finally at four o'clock in the afternoon he gave up the struggle, returned to the building, had the janitor let him into the office, got the ace of spades, looked up the hypnotist at his home, and handed it over plus a one dollar bill.

Now note, for future reference, the compulsive power of the Freudian complex. The pyromaniac who *must* set fires, the kleptomaniac who *must* steal, the person suffering from claustrophobia who *must* avoid confined places: all these illustrate the Freudian complex at work. As we will see later, this complex is, in reality, a posthypnotic suggestion, only there did not happen to be any hypnotist present. This is a little hard to understand, so we ask you to suspend judgment until later chapters.

These compulsions arising from the posthypnotic suggestion work in very curious ways. For example, we say to a subject, "When you awaken I will reach for a cigarette. You will then hand me the ash tray from the mantelpiece." When he is wide awake the operator reaches for his cigarette and the subject promptly hands him the ash tray.

"Why did you hand me that tray?"

The subject looks puzzled. "Well, why not? You are smoking and have no ash tray."

"It was a posthypnotic suggestion. See if you can pick out the next one and resist it."

We try again. This time we say: "When I stand up to leave the room you will hand me a coat. By accident, however, you will hand me Mr. Jones's coat, the one with the velvet collar."

This time, when we stand up, he immediately hands us Jones's coat, then notices his mistake and apologizes profusely. We say, "Fooled again! Another posthypnotic suggestion. See if you can catch us."

In one case, during the Second World War, we said to a subject: "When you awaken we will mention the shipping losses caused by the submarines. You will then reach for the *New York Times* and quote us the losses for the last four weeks."

He was awakened. Five minutes later the hypnotist mentioned shipping losses. He promptly reached for the *Times* and just as promptly stopped.

"No, you don't. Not this time. That is a posthypnotic suggestion. I won't carry it out."

"How do you know it is a posthypnotic suggestion?"

"I just feel it in my bones. Sort of an urge to do it and a very uncomfortable feeling when I resist. That feeling would never come from anything else."

"You can't resist it."

"Yes, I can. Much as I want to get my hands on that *Times*, the thing is not irresistible."

"Very well. Look up the figures anyhow just to ease your mind."

This subject, highly intelligent and himself a psychologist, could detect the curious drive to carry out the suggestion and so was able to identify it. The reader will note a point which is very important for later discussion. The subject tends to carry out these suggestions without any hesitation, especially when they fit into the social situation in which he finds himself. However, as soon as he finds out the cause of his actions, he just as quickly decides to resist. Whether this resistance will be effective depends on many factors, especially the depth of the trance and the attitude of the hypnotist.

Sidis in his *Psychology of Suggestion* brings out the importance of operator-attitude very clearly. He quotes from his wide experience to show that the subject will resist a suggestion if he has the least idea that the operator does not fully expect him to com-

ply. If the hypnotist makes his suggestions in a firm voice which does not express the slightest doubt as to their acceptance, the order will be obeyed.

It must be pointed out that in hypnotism we cannot adopt completely the methods of the physical sciences such as chemistry, where the attitude of the experimenter does not matter. If he adds zinc to sulphuric acid, the result is quite clear-cut and definite, whatever may be his attitude. But in suggestion the attitude is tremendously significant. A suggestion given in a voice which does not express conviction is not nearly as potent as one given with determination and force.

We do not have to experiment with hypnotism to see the truth of this statement. Any effective public speaker knows that confidence, conviction, and force are necessary to sway his audience. We will later see that Hitler used all the techniques of a stage hypnotist and used them with great effectiveness.

So we must always bear in mind that, while psychology claims it is a science and that it follows the scientific method, this personal factor introduces an element which is quite foreign to chemistry, physics or geology. The psychologist, in his determination to get standard conditions, may, in some cases, completely defeat his own ends and become a very unscientific scientist. Hypnotism supplies us with our most glaring examples and, for this reason, hypnotism is probably the most difficult of all subjects, in psychology, to investigate, because the personality of the operator is of such great importance.

The reader must bear this in mind when, in later pages, we discuss such subjects as the possible use of hypnotism for criminal ends and for the detection of crime. Some of our very best men, such as M. H. Erickson at Phoenix, Arizona, insist that hypnotism cannot be used in either situation. But we will also see that others of equal reputation, W. R. Wells of Syracuse University and L. W. Rowland, are just as emphatic that it can. This presents a very confusing picture to the average reader and may discredit this branch of psychology. Actually such results must be expected until we find some way of evaluating the personal factors of both the hypnotist and the subject.

There is a second characteristic of the posthypnotic suggestion

which is of the very greatest importance. This we term rationalization. The subject tends to rationalize, to find excuses for his actions and, strange to say, while these excuses may be utterly false, the subject tends to believe them.

This applies also to the Freudian complex. Take the man in the local insane asylum who thinks he is Napoleon. You point out to him that Napoleon died one hundred and fifty years ago. He may tell you that he is the reincarnation of Napoleon. Then why is the mighty Napoleon in an insane asylum? Very simple. His enemies are desperately afraid of his genius, and this is the result of a plot. But just wait until his friends get him out. Then the fur will fly. And he believes everything he says. Let us return to the post-hypnotic situation and note the parallels.

For example, the writer said to a very good somnambulist: "After you awaken I will sit down at the piano. You will then go to the bookshelves, select the third book from the left hand side, second row from the top, turn to page 127 and read the first paragraph." The subject remembered nothing of what the operator had said, yet, when we sat at the piano, the subject wandered over to the library, selected the proper book, opened to page 127 and started reading. It happened to be a textbook on biology.

The operator interrupted. "Why are you reading that stuff to me?"

"Well, yesterday I had an argument with Professor Smith about the action of the chromosomes in reduction-division, and I thought you could help me out."

The subject was a medical student, the story fitted together neatly, and he evidently believed it—only it was quite untrue. He had not seen Professor Smith for a week and had had no argument about the action of the chromosomes. This case is typical. The subject always finds an excuse to justify his conduct, and this conduct may be pretty hard to justify, as in the following case.

The operator hypnotized a subject and told him that when the cuckoo clock struck he was to walk up to Mr. White, put a lamp shade on his head, kneel on the floor in front of him and "cuckoo" three times. Mr. White was not the type on whom one played practical jokes, in fact he was a morose, nonhumorous individual who

would fit very badly in such a picture. Yet, when the cuckoo clock struck, the subject carried out the suggestion to the letter.

"What in the world are you doing?" he was asked.

"Well, I'll tell you. It sounds queer but it's just a little experiment in psychology. I've been reading on the psychology of humor and I thought I'd see how you reacted to a joke in very bad taste. Please pardon me, Mr. White, no offence intended whatsoever." And the subject sat down without the slightest realization he had acted under posthypnotic compulsion and had rationalized those actions.

Next came a very curious situation. Mr. White was a lawyer and interested in the whole problem of hypnotism in crime.

"Do you think hypnotism is dangerous?" he asked the subject.

"I'm sorry but I know nothing about hypnotism," came the puzzled reply.

"But you were hypnotized only five minutes ago."

"Now you're having your little joke, but I have never been hypnotized in all my life."

"I certainly saw you in hypnotism right in this room not five minutes ago."

"You certainly saw no such thing. I know nothing about hypnotism, never have been hypnotized, and know that no one could put me to sleep."

### *Three Trick Plays*

With the posthypnotic suggestion, we can remove from the subject all knowledge of ever having been in the trance. We merely assure him in hypnotism: "In future you will have no memory of ever being asleep. You will remember nothing about hypnotism but will insist that you have never been hypnotized in all your life."

After such a suggestion has been repeated a few times the subject has no knowledge of going into trance. We seat ourselves opposite him at the table. He is hypnotized and we talk along for half an hour. Then we awaken him and he at once picks up the conversation where he left off before being hypnotized. We ask him about the trance and he looks puzzled. He is quite sure that we have been talking quietly in our chairs ever since he entered

the room. When he is told that he was in the trance, and is a good subject, he is inclined to think that we are trying to play a very poor joke on him. The whole thing doesn't make sense and the subject says so.

We can go even further with the posthypnotic suggestion. Not only can we, with its aid, remove all knowledge from the subject of ever having been hypnotized; we can make it impossible for anyone beside the operator to hypnotize him at any future date. This again is the result of suggestion in the hypnotic trance. After such a suggestion the subject, no matter how good a somnambulist he may be, becomes most obstinate when anyone else tries to get the trance.

In the waking state he denies that he has ever been hypnotized and is unwilling for anyone to try to induce the trance. He claims that hypnotism is something he never liked, that he thinks the whole thing silly and does not wish to make a fool of himself. If we press him, he will consent very reluctantly to allow someone present to try, but the operator in question can get nowhere. The subject is definitely hostile and merely goes through the motions of co-operation but nothing more.

To complete this curious picture: we sometimes use the post-hypnotic suggestion to induce hypnotism, after the first trance. We say to the subject: "Listen carefully. In future, whenever I take the lobe of my left ear in my left hand and pull it three times, you will at once go sound asleep." This suggestion may have to be repeated several times, depending on the subject, but with a little practice it will work. To hypnotize the subject, the operator now merely strokes his left ear three times and the subject is in trance. We may use any cue, as long as we make it clear to the subject what this cue is to be. We may say to him, "You are asleep," or may use any other phrase such as "Mary had a little lamb," if we wish it to be verbal, while the range of visual cues is unlimited.

We will see later that hypnotism has nothing to do with sleep. A good subject may be in deepest trance yet behave for all the world as if he were wide awake. The writer has mentioned the use of a somnambulist as his bridge partner for an evening; the subject played every other hand in the trance state and no one in the room was any the wiser. Control of the trance was exercised by

means of posthypnotic cues, in this case scratching the left ear and scratching the right ear to hypnotize and awaken the subject, respectively.

This shift from waking to hypnotic states can be extremely quick and subtle. The writer recently witnessed a beautiful demonstration with a very good subject, of hypnotizing and awakening him, with the writer trying to detect the change. It turned out to be quite impossible, so well concealed were the cues and so quickly did the change occur. The only way the writer could decide was to ask the subject, quite frankly, "Are you asleep?" and take his word. It would have been easy to check up by using some test, such as anesthesia, but under the circumstances this was not necessary. The subject was quite honest and enjoyed the game as much as anyone. J. A. Christensen, Jr., of Tampa, Florida, writes to this point in a recent article.

These three trick plays leave us with a different picture of hypnotism from that which exists in the mind of the average layman. It is this very confusing, one might almost say deceptive, aspect of hypnotism to which we later devote several chapters.

There are a few other questions which seem of interest. How long will the posthypnotic suggestion last? Frankly, we have no idea. Liébeault reports a case in which a very complicated suggestion was carried out after a year. The writer recently ran across a case where the posthypnotic suggestion seemed to be fairly strong after twenty years.

During the First World War he was interested in the study of hypnotism and was far more inclined to go in for "stunts" in those early days. He had a favorite trick with one subject. He would say, "Watch the front." Whereupon the subject would stand up and shout, "Call out the guard. Here comes Paul Revere."

It happened that later the operator met this subject and in the course of the conversation suddenly said, "Watch the front." The subject looked puzzled, then said, "Call out the guard. Paul Revere is coming." Then he looked even more puzzled and added: "I wonder why I said that. Somehow something you said recalls the last war and all the muck in the trenches. I never recalled the whole thing quite so vividly before."

It is generally accepted that these suggestions tend to wear off

unless we give some very specific time and date such as four o'clock, Christmas afternoon, 1941. However, with occasional reinforcement in the hypnotic trance, there seems no reason why the posthypnotic suggestion would not last indefinitely. It seems to do so in the treatment of alcohol and tobacco addiction. It is reasonable to suppose that it will do so in other situations. E. R. Kellogg in a recent article states that the power of the posthypnotic suggestion decreases rapidly during the first three weeks, if this suggestion is not reinforced. That, after all, is about what one would expect.

### *Autosuggestion*

The statement was made at the beginning of this chapter that any of the phenomena which could be obtained in hypnotism or by the posthypnotic suggestion could also be produced by means of autosuggestion. This is literally true but it is by no means as easy to demonstrate as are the various conditions we obtain in direct hypnosis. However, it can be shown quite conclusively if we use hypnotism as a springboard and reinforce or initiate the autosuggestion by suggestions given in the hypnotic trance.

The general public was familiarized with autosuggestion through the works and lectures of the Frenchman, Coué. This man spent most of his life in Nancy, France, home of Liébeault and Bernheim, fathers of modern hypnotism. Actually Coué was neither a doctor nor a psychologist. He was the proprietor of the "corner drugstore," so to speak. However, living in that city with its traditions of achievement in hypnotic research, he picked up a considerable knowledge of technique, if not of theory.

Autosuggestion, as presented by Coué, was nothing new. Bernheim was quite familiar with all the phenomena Coué describes as we can see by reading his book, *Suggestive Therapeutics*. However, Coué had some of the showman's technique and may have done psychology some service by bringing this phase of suggestion to the attention of the public. His own writings are not convincing but, if the reader is interested in following the subject further after our discussion in the following pages, we refer him to the work by Baudouin, *Suggestion and Autosuggestion*.

We will first consider autosuggestion as initiated in the hypnotic

trance. For example, we say to the subject, after he has seen an imaginary black dog in hypnotism, "Listen carefully. In the future whenever you wish to see the black dog when you are awake, you have only to take a pencil and a piece of paper, print the word 'dog' and the dog will appear before your eyes." We repeat these instructions carefully and then awaken the subject.

When awake, we say to him, "By the way, have you ever had a vision?" He admits he has not. "Well, how would you like to have one?" He says it would be a very interesting experience, so we hand him a pencil and paper, then say, "Now print the word 'dog' on the paper and tell me what you see." He does so and expresses great surprise at seeing a black dog standing beside his chair. This little trick may not succeed the first time, but with a good subject, and the repetition of the suggestion in several séances, we can usually count on success.

The various implications of this technique are fairly obvious. The writer recalls one very good subject who was troubled with inability to sleep. He was instructed in several séances that in future when he wished to sleep he would relax and repeat the first five letters of the alphabet. He would then have an irresistible impulse to go sound asleep and would remain asleep for as long as he wished.

This subject became so good at this game that he was quite willing to show off his abilities before anyone. He would guarantee to go asleep on ten seconds' notice in spite of anything we could do, physical violence excepted, and that it would be quite impossible to awaken him until he decided to awaken, say at the end of some fifteen minutes or half an hour.

The use of specific autosuggestion to reinforce hypnotic and posthypnotic suggestions has, in our opinion, great possibilities. For example, we take a subject who complains of great difficulty in concentrating. He wishes to study at night and tries to, but finds it very hard to concentrate on his study after a day at the office. We try the usual hypnotic suggestions with considerable success, then clinch the matter with some specific suggestions which are to take the form of autosuggestion.

We say to him, "In the evening when you wish to concentrate, you will prepare all your work so that you will not have to leave

your room. You will then put your watch on the table, take a card and print on it 'Concentrate until 10:30.' You will place this card beside the watch. From then on you will have no difficulty whatsoever in attending to your work. Everything will leave your mind except the determination to work hard until 10:30 or whatever time you may print on the card." This little trick seems to help very much in securing the much desired ability to concentrate.

Here, of course, arises a fine point. Is this autosuggestion or posthypnotic suggestion? In this book we will side-step the issue by saying that the question is only of theoretical interest. We could argue indefinitely over many such problems, as, for instance, is all suggestion autosuggestion or is all suggestion hetero-suggestion, that is, suggestion with the aid of an operator, real or imagined? Much ink has been spilled on this issue and it is still an open question. For our purposes we are entitled to avoid such problems on the plea that we simply go "round and round the mulberry bush."

As with the hallucination, we can obtain all other hypnotic phenomena by means of autosuggestion and by using the same technique. Paralyses, anesthesias, even control of the heart rate, lend themselves to this attack. But its practical use would be in giving man command over himself, over his powers of concentration, and over his personality, so that he could rebuild himself along the lines of success and happiness. There may be here a great future for autosuggestion.

All autosuggestion need not be initiated by hypnotism. Coué was not interested in this approach, and Baudouin outlines in his book the ordinary procedure. This is literally to give to yourself, when relaxed, the desired suggestions. Coué's famous formula, "Every day and in every way I'm getting better and better," was quite the rage some years ago. Undoubtedly such a general formula can be of great help in many cases.

Coué, in his writings on autosuggestion, stresses the importance of imagination. If we can imagine a thing vividly enough, then it's true. This point is open to argument. We must realize that in autosuggestion, as in hypnotism, people probably vary greatly in their openness to such suggestions. Success will not be uniform with any technique; some people will get results, others will not.

Nevertheless, the writer has found that the following procedure

seems to be the one which is easiest and which can produce most of the things we get in hypnotism. The subject should relax on a couch or in a chair, close his eyes, and "Talk sleep" to himself. With a little practice he will recognize the coming of hypnosis, that "faraway" feeling accompanied by numbness in the limbs and a general laziness.

When this stage arrives the subject should then shift over to active suggestion, but without awakening himself. He must suggest to himself that, let us say, all sensation has gone out of his right arm or that he is listening to a symphony. The technique of autosuggestion is difficult, but it can be mastered. Once the subject has obtained this mastery he will find that not only can he produce, say, hallucinations in the trance itself but can actually suggest posthypnotic hallucinations to himself. It does sound weird but it can be done.

For example, the writer, while in military hospital, had ample time to experiment with autosuggestion. He was able to suggest to himself that he would wake up at 2:00 A.M. and hear a symphony. Even more interesting, he could suggest that he would awaken and hear spiritistic raps. Sure enough, at 2:00 A.M. he was wide awake listening to very distinct raps from the spirit world.

Then came a very interesting experience, almost a state of divided consciousness. He heard the raps distinctly but knew they were the results of autosuggestion. He was even able to make a "mental request" that they group themselves in two's and three's and the spirits obliged. We will see later that hypnotism provides us with a key to explain most psychic phenomena, when these are genuine and not the result of magician's tricks.

Autosuggestion gives us an excellent device with which to study many strange things. The writer had a "pet" polar bear which he was able to call up merely by counting to five. This animal would parade around the hospital ward in most convincing fashion, over and under the beds, kiss the nurses and bite the doctors. It was very curious to note how obedient he was to "mental" commands, even jumping out of a three-story window on demand.

But autosuggestion has a certain menace which this phantom bear illustrated. He became so very familiar that he refused to go away. He would turn up in the most unexpected places and with-

out being sent for. The writer was playing bridge one evening and almost threw his hostess into hysterics by suddenly remarking, "There's that damn bear again. I wish someone would shoot the beast." He also had a nasty habit of turning up in dark corners at night, all very well when one realized he was just made of ghost-stuff but rather hard on one's nerves for all that. So he was banished and told never to return. It was fully a month before the writer felt quite sure that his ghostly form would not be grinning at him over the foot of his bed during a thunderstorm.

So autosuggestion has a greater menace than can ever arise from straight hypnotism. In the latter, the situation is always in skilled hands. Any bad effects can be remedied on the spot, once and for all, but this is not so with autosuggestion. The subject is his own doctor, which has all the dangers this would imply if he were allowed the run of a drugstore to treat his ills without previous training. It is very hard for the average man to recognize trouble which may be the result of autosuggestion and just as difficult for him to treat it.

The writer recalls the case of a very gifted woman who became interested in spiritism. As we will see, the spiritistic phenomena are largely due to autosuggestion. She became so deranged through talking to the spirit of St. Augustine that she had to retire to a sanitarium. She later regained a certain amount of her former mental balance but, left to herself, she could never have handled the situation. This was largely because she did not realize how very near she was to complete insanity. St. Augustine was a very real person, she valued his friendship immensely and resisted treatment until the supposed spirit was ousted by hypnotism. With this aid she recovered sanity enough to see how serious her situation was and from then on could help herself.

So the writer cannot become enthusiastic about autosuggestion. We will see in later pages that it may easily result in dissociation. In theory the subject should be able to guide his own treatment and become the master of his own personality. But it may just as readily encourage a tendency to dissociation which is latent in so many people, and so lead to the development of neurotic traits. The reader will do well to read through the next two chapters before he passes judgment on this statement. As yet we have not

had enough of the theory of hypnotism to give us a proper basis for discussion.

We repeat: anything which occurs in hypnotism or the posthypnotic suggestion we can get in autosuggestion. Also, any of these hypnotic phenomena may occur in everyday life, when we refer to the subject as "queer," an hysteric, a neurotic, even as insane. For this reason hypnotism is of very great importance, and we refer to it as the "laboratory" of abnormal psychology. It provides us with a key to understanding the insane and the neurotic.

For instance, the operator can suggest to a subject that, on awakening, he will have an irresistible impulse to kill every cat he sees, telling him in hypnotism that cats spread bubonic plague through their fleas and that by killing cats he will confer a great service on humanity. When the subject awakens he may very easily have an urge to kill any cat he meets. Asked for a reason he will insist that they are a menace to the country, that they spread the plague. Yet he will have no idea of where this idea comes from.

Should we run across such a case in everyday life we would say that he is suffering from a "compulsion." Actually we do have many examples of these compulsions as in the case of the kleptomaniac who must steal even worthless objects, the pyromaniac who must set fires, and many others. Moreover, we will point out in later pages that the kleptomaniac and the pyromaniac are really working under a posthypnotic suggestion—minus the hypnotist. They act in exactly the same way as if they had been hypnotized and given their instructions in the trance. As a matter of fact we will see that they *have* been hypnotized at some time in their life and have been given the suggestion in question. The fact that no hypnotist was involved, that they may never have seen a hypnotist in all their life, we will see, has no bearing on the case.

Similarly hypnotism gives us the explanation for many other types of mental disorder. The man who has a fear of cats, a phobia as it is called, acts exactly as if he had received the suggestion in hypnotism. And he did—only it was not labeled hypnotism. Likewise we will point out that an understanding of hypnotism helps us to understand "Napoleon" in your state hospital for mental diseases. We can procure him in any psychological laboratory, and

in so doing understand how he "gets that way" in normal life. As a matter of fact, the writer can see no difference between the Freudian complex and the posthypnotic suggestion. We will be in a better position to understand that statement after the next two chapters, but we would like to re-emphasize the thread of continuity. Hypnotism, posthypnotic suggestion, autosuggestion: what we get in one we can get in the other. And the phenomena we obtain in any of them occur in everyday life, when we refer to them as various mental disorders. But actually we can best understand them as forms of the posthypnotic suggestion or autosuggestion. This is why our subject is so important.

A final word. Hypnotism may explain many forms of insanity. That does not mean to say that hypnotism can cure them. In some cases it may help, but the fact is that, while we may know why Mr. Smith is in a hospital and thinks he is Napoleon, this does not assure a cure by hypnotism or any other means. What man has done man can do again. It does not necessarily follow that what man has done man can undo.

CHAPTER V

# *Hypnotic States in Everyday Life*

WE HAVE said that there are hypnotic states in everyday life which can occur without a hypnotist. The reader may feel that this is double talk, and that we are trying to drag hypnotism into a picture where it does not belong. But hypnotism does not necessarily involve a hypnotist. We try to explain this double talk in Chapter VI.

## *Automatic Writing*

Let us now examine some of those states which are closely related to hypnotism, for in so doing we will not only understand the underlying cause of these related phenomena but will obtain a fuller picture of hypnotism itself. Take, for instance, automatic writing as a first example. The reader is probably familiar with this curious state, wherein the subject's hand writes "automatically" with no reference to what is in the conscious mind.

This may take many forms. The subject may lose consciousness completely while the hand writes, but in general he retains his full conscious faculties. He may be able to interrupt the hand but again the writing hand is generally a law unto itself. It scribbles along until it has finished, perhaps in five minutes, perhaps in fifty, then stops and is again a part of the normal body pattern.

The usual picture is somewhat as follows. The subject relaxes in a chair with a pencil in his hand, a paper on the desk. After one or two minutes the hand makes a few convulsive movements, then starts writing. The letters are generally large and ill-formed, but in some cases, as in that of Stainton Moses, the writing may be beautiful. The hand guides itself largely by touch and writes until it comes to the end of the page, then pauses with pencil uplifted awaiting a fresh sheet of paper. The subject himself may supply this with his other hand, or, if in trance, his associate will put the fresh sheets in place.

The strange thing about this whole procedure is that the subject has no control over the hand in question. He has not the slightest idea as to what it will next write and is often badly embarrassed when the hand makes a "remark," so to speak, which should not occur in polite society. We can screen the writing hand from the subject's sight, passing it through a cloth curtain. Then the subject can quietly read a magazine while we experiment with the hand. It will write along, in no way disturbing the subject and in no way disturbed by what he may be reading or thinking.

We stick a pin in the hand. The subject does not pay the least attention, but the hand promptly writes "stop it," "cut it out," or some such phrase. The writer had an ex-army friend on whom he tried this little trick. Everything was going along fine until we pricked the hand with a needle, whereupon the hand burst into a stream of cuss words that would have made any top sergeant blush with shame. For full five minutes it told the operator just where he could go and how to get there. All this time the subject was reading *Oil for the Lamps of China* without the slightest idea that his good right arm was fighting a private war.

We refer to automatic writing as an example of dissociation. The arm in question is dissociated, is cut off from the rest of the body. This must mean that those parts of the brain which control the arm are for the time being disconnected with those parts responsible for normal waking consciousness, which could be explained in terms of the synapse theory we have already mentioned. At any rate, the arm acts by itself and seems to be an outlet by which the unconscious mind can express itself without completely unseating the conscious mind. This hand will often mention facts which are unknown to the subject.

This often has great use in medicine. Take a subject, aged twenty-five, who is a victim of the hand-washing mania; he simply must wash his hands forty times a day. He also does automatic writing, and as we can get no real information from him which might explain his compulsion to hand washing, we ask the hand itself in automatic writing.

"Why do you have this compulsion to wash?"

"I don't know."

"Now, think. When did it first make its appearance?"

"Sometime when I was about eleven or twelve."

"That is not close enough. You can do a lot better. Now, think. When? When and why?"

"Good heavens. Now I know," and the hand scribbles out the story. It appears that, as a boy, he had a dog of which he was very fond. On one occasion this dog fell into an open cesspool and was in danger of drowning. The boy had a friend hold his legs, then he lowered himself down and rescued the dog, getting himself filthy in the process. Worse than this, he also collected a sound thrashing from his father, who told him that he had probably contracted various diseases, including syphilis. On this basis was built up the morbid compulsion to wash his hands. We will see later that the most important step in curing many such conditions is that of learning the original cause.

We refer the reader to Watkins' book, *The Hypnotherapy of War Neuroses.* Watkins' various techniques for investigating the unconscious give us a picture of hypnotism that is weird and fascinating.

We can find examples of these automatic movements in much simpler form than those involved in automatic writing. Some readers have probably been present at a "table tilting séance," wherein the table is in contact with the spirit world and raps out its messages to friends on this side of the border.

Science now generally accepts that the movements of the table are due to automatic—quite unintentional—pushes and pulls on the part of the "sitters." The fact that they always protest that they have exerted no conscious effort means nothing, for we get these automatic movements in far more elaborate form with automatic writing and here the subject may be totally ignorant of what his hand is doing. Moreover, the plea that the table sometimes raps out information of which no one present is conscious also means nothing. These automatic movements, as coming from the unconscious, would have much material at their disposal of which the conscious mind would be in ignorance. It is difficult for the average reader to grasp this possibility, but we refer him to the cases of multiple personality which we discuss in later pages of this chapter. This weird condition probably gives the most convincing illustrations which psychology can muster.

In this same class, of course, comes work with the ouija board, an instrument with which many are familiar. Here the automatic and wholly unconscious movements of the sitter guide the little table over the board as it spells out answers to the various questions. Some people can work the ouija board with great success, obtaining from it all kinds of information of which they have no knowledge. It comes from the unconscious. Others can get nothing at all from the board. It simply refuses to budge. This is in strict accord with what we would expect if susceptibility to these automatic movements had anything to do with a similar openness to hypnotic suggestion.

And it has, very definitely. The writer has, in his work, met many people who, as a pastime, practiced automatic writing. Whenever he has tried hypnotism with these persons they always turned out to be excellent subjects. And we find the same with those who can get good results from the ouija board. An experienced operator need not waste much time looking for subjects. Inquiry will show that in many groups there are some who consistently walk or talk in their sleep, who have practiced automatic writing, who like to work with the ouija board or who have success as "crystal gazers." With such persons the operator can hope that he is dealing with good hypnotic subjects.

These persons are highly suggestible and it would appear that most of these automatic movements, so often associated with spiritism, are largely the result of autosuggestion. The subject becomes interested in spiritism, and has an intense desire to get some of the "mediumistic" phenomena in himself. So he seats himself in front of paper, with a pencil in his hand, relaxes and hopes for results. This is simply one form of autosuggestion and if the individual is a good hypnotic subject, he gets the results he wishes. If not, he becomes discouraged and concludes that the whole thing is a fraud.

The results depend on dissociation produced by suggestion. We will see later that, while dissociation may not be the whole explanation of hypnotism, the fact remains that we almost never get hypnotism without dissociation. They are psychological Siamese twins born of the same parent, suggestion, both dependent on the

suggestibility of the individual in question. That analogy is not quite accurate but it gives a pretty good picture.

The relationship between these states and hypnotism we see, again, in that we can easily obtain them in most good hypnotic subjects by means of suggestion in the trance. We make use of the posthypnotic suggestion, saying to the subject, "In the future whenever you wish to do automatic writing, you will sit down before a sheet of blank paper, take a pencil in your hand, and relax. You will then recite the first five letters of the alphabet and then your hand will begin to write." It may be necessary to repeat these suggestions in following séances, even to give some specific suggestion such as "your hand will write 'Mary had a little lamb,' " just by way of getting the subject into the knack of the thing. But with persistence the somnambulist can generally succeed with automatic writing while the automatic writer will almost always become a somnambulist.

### *Crystal Gazing*

Another curious phenomenon we see in everyday life is "crystal gazing." Here again the unconscious seems near the surface and in this case vision is used as the outlet. Also, it can be obtained as a result of posthypnotic suggestion and, probably, crystal gazers are good hypnotic subjects. The writer has had too little experience to make a definite assertion but he feels that such is the case.

By the way, we do not need a crystal for crystal gazing. A glass of water is just as good, especially if we have a point of concentration on the surface, such as a small drop of oil. Even this is unnecessary. And the technique for developing the "power" is exactly the same as in the case of automatic writing. Sit down, relax, gaze into the water, and hope for results, all of which is a perfect setting for autosuggestion. The process can be made much shorter by using the posthypnotic suggestion, showing again the close association between the hypnotic states and these odd conditions of everyday life.

Moreover, the "visions" we get in crystal gazing are the same as the revelations through automatic writing. It is material drawn from the unconscious mind, sometimes dealing with events of which the subject has no conscious knowledge. The reservoir is the

same but the "pipe line" leads in different directions. In automatic writing it leads to the hand, in crystal gazing to the eyes, but from nothing supernatural in either case. An excellent and authoritative book on this subject has been written by T. Besterman.

These conditions illustrate a principle which we will deal with later. Certain experiences of childhood and later life are "repressed," are forced out of consciousness, because they are unpleasant. These are completely forgotten as far as our conscious life is concerned, but while "down" they are not "out." They may cause a great deal of trouble, being the origin of all sorts of mental disorders.

The unconscious is like a steam boiler, designed for a certain pressure and with pipes leading to the engines. These "repressions," or "complexes," when forced into the unconscious, build up the pressure. They add more steam, or "libido." The normal outlet to consciousness is blocked, in that these repressions or complexes have been forced out of consciousness and are kept out. As this pressure increases, something has to give. It may be the safety valve, and we will see neurotic symptoms. Or much worse, the pressure may blow a hole in the boiler and create a psychotic condition or insanity. We can attempt a cure by opening the normal pipe between the unconscious and the conscious.

"Shell shock" is a case in point. It really should be called "war neurosis," since it need have nothing to do with shells; it is a reaction to fear. In general, it will be found that these shell shock cases have a period of amnesia, a memory blank, for some terrible experience. They remember nothing about it, yet for purposes of a cure it is necessary that it be restored to consciousness. Hypnotism is excellent, or any other device which taps the unconscious, including crystal gazing.

The writer recalls one such case in the First World War. The patient was suffering from a violent tremor all over his body, so violent that he could not walk or even feed himself. The doctor, planning to try hypnotism, began explaining to the subject just what he would want him to do. In the course of the conversation the subject volunteered the information that he had once been very much interested in crystal gazing and had been quite success-

ful in obtaining visions. This seemed a good lead, so the doctor suggested he try it and report his experiences.

The patient did so, and saw in the glass the whole terrible experience of a bombing attack in which most of his company had been killed and he himself had bombed three of the enemy in a dugout under very harrowing circumstances. Yet previous to this vision, he could not recall any details of the attack, his mind having become a complete blank for the period of roughly twenty-four hours covering and following the bombing attack.

Another type of automatic activity which is not so generally known but which further illustrates our point is the phenomenon of "shell hearing." We all know that if we cover an ear with a shell we get a peculiar roaring sound. In some people this roaring refines itself into voices and these become a series of auditory hallucinations. Moreover, we do not need the classic shell. A teacup held over the ear does just as well; and, as usual, the voices heard tell of events with which the subject is already familiar or which are in his unconscious mind.

Both automatic writing and shell hearing naturally lend themselves to another line of activity. The writer or listener is able to express his own philosophy of life in such a way that he may easily rank himself as a prophet. For some strange reason the average man is very much impressed with these automatic phenomena both in others and in himself. Consequently if he has a vision, or receives a message by automatic writing, or hears "voices" with or without the "shell," he is likely to regard them as direct from the supernatural and act as if he were receiving guidance from the deity.

### *Speaking With Tongues*

The aspects of automatic phenomena are seen best in our final example: automatic speech, or speaking with tongues, or glossolalia. The best book on the subject is that by G. B. Cutten. The name refers to the Bible story of Pentecost, the seventh Sunday after Easter, when the Holy Spirit in tongues of fire descended on the Apostles and they began talking in "tongues." Whether or not this original experience involved actual foreign languages in which they were to preach the reader may judge for himself. Suffice it for

our purposes to say that fifty years later, St. Paul himself advised his followers to expend their energies along other lines. Since his time there has not been a case, acceptable to psychology, wherein an individual has been able to speak any language without first going through the process of learning it. To be sure, we have heard of many such cases in popular literature. There are even certain religious groups who insist that their members can talk all sorts of foreign languages with no previous training. But the psychologist would still say "unproved."

L. R. Wolberg, of New York City, recently reported a very interesting case. A woman in hypnotism began talking in a strange language. It turned out to be the classical Greek of 2,500 years ago. The woman in question could give no explanation in her normal waking state. Wolberg finally discovered that as a child of three or four she accompanied her mother, who worked for him, to the home of a Greek professor. He would walk around the room reciting Greek poetry from the old classics. The woman had long since forgotten all about this, but it was stored in the unconscious.

What happens in automatic speech is the same sort of thing we have already seen in automatic writing. It is a case of dissociation, only here it is the muscles of the throat which are no longer under control of the normal waking personality. The individual starts talking just as the automatic writer writes, the throat muscles appearing to run themselves without any conscious control from the person in question. The words the subject utters may be utterly unintelligible, a language of his own, a "divine language" as it is sometimes called, or he may speak his own native tongue, expressing what is in the unconscious mind.

In this latter case we again have an analogy from automatic writing. The thoughts expressed may be utterly trivial, even foolish, or they may represent the working of a profound or an artistic mind. We introduce here a famous case, to illustrate some points, the case of Patience Worth. She was a Mrs. Curran in everyday life, who lived the healthy normal existence of millions of other American women. She had a high school education, had early hoped to become a singer or an artist of some description and again, like millions of others, had been forced to realize that she simply did not have the ability. Fortunately she had the good

sense to accept this fact, a point of view which all too many humans cannot achieve.

But, strange to say, Mrs. Curran ended up as an artist. Yet it was not really Mrs. Curran, but her unconscious, Patience Worth. This curious situation illustrates how these automatic phenomena merge into one another just as do the various stages of hypnotism. Table tilting and the ouija board are more or less crude manifestations of the unconscious at work, an outcropping which is not too convincing and is purely temporary. But in the case of Patience Worth the unconscious had assumed the role of a separate and distinct personality, one which was in some respects far superior in ability to the original. Here we are verging on multiple personality, which we will discuss shortly.

This organized unconscious of Mrs. Curran gave itself the name of Patience Worth and claimed to be the spirit of an English girl who had lived in the reign of Queen Elizabeth, during the latter half of the sixteenth century. Moreover, while Mrs. Curran had no artistic ability, Patience Worth was an author of high grade, writing several books and publishing many poems which some established critics consider good. And, strange as it may seem, these books contain a much higher percentage of sixteenth century English than almost any other novel or poem written in America! A thorough and scientific discussion of this case is presented in the book, *The Case of Patience Worth,* by W. F. Prince.

While science will not accept the claim that a spirit from past years occupied the body of Mrs. Curran, psychologists will admit that the case is very complex, showing to a high degree that ingenuity of the unconscious so evident in hypnotism. This unconscious, having assumed the name Patience Worth, was remarkably consistent, always using a preponderance of old English words in her writings. We leave the reader the task of reviewing the evidence and deciding for himself how the writings came into existence.

This case illustrates another interesting phase of automatic activity. With practice the unconscious sometimes becomes more efficient, better organized. Patience Worth began her communications with the planchette, a crude form of ouija board. But this was a very slow and clumsy method for such a brilliant personality,

so she "graduated" to automatic writing. Even this proved too tedious so she then did her work by automatic speech. She, Mrs. Curran, sat down and relaxed. Soon Patience Worth came to the surface and began work on her current novel or book of poems, Mrs. Curran being conscious all the time and literally attending to her knitting. Should the phone ring Mrs. Curran immediately answered it, taking over control of her throat and talking as Mrs. Curran. A minute later Patience Worth was again dictating her book!

This evidence of unconscious ability is not as rare as many readers may think. We find it in many spirit mediums, a group we will discuss later in this chapter. And we find in some hypnotic subjects, when we take the trouble to look, the evidence of artistic ability approaching genius. After all, that is not so unreasonable as it may sound. We have repeatedly said that the subject in hypnotism is not "asleep." He is very much awake, but is a different personality. We know that a great deal of imagination in humanity is held down by social pressures; the individual does not dare give vent to his artistic talents for fear of making a fool of himself. But we also know that hypnotism may lift these "inhibitions," as we term them, in some cases freeing the subject so that he will care little for the opinions of his social group. Under these circumstances genius, if it exists, might have the chance of pushing to the fore. For instance, Coleridge claimed to have written *Kubla Khan* during his sleep, which was probably a state of unconscious activity.

### *Multiple Personality*

As we mentioned before, these automatic phenomena tend to merge into one another. Patience Worth, as the unconscious of Mrs. Curran, was so well organized that we may regard her as a separate personality, which brings us to the most curious of all these automatic, or semihypnotic, conditions, that of multiple personality.

In this field of multiple personality we find a gradual increase in complexity. The most simple cases we refer to as the "fugue," or flight. William James, the great Harvard philosopher and psychologist, reported some cases, among the earliest in the literature.

A man named Ansel Bourne lived in Boston. Suddenly he vanished and after a careful search he was given up as lost. Six months later a man in Philadelphia, who had been running a grocery store, suddenly "woke up," gave his name as Ansel Bourne and asked to know what he was doing so far away from home. Apparently he had run his grocery business fairly well for six months while in this "unconscious" condition, his "secondary" personality taking charge and giving the appearance of normality.

A different type is the case of Rou. Here there is a close resemblance to somnambulism as seen in sleep walking. We have already pointed out the very close relationship between somnambulism and hypnotism. Rou was a poor boy in Paris, France, who lived with his mother, a small storekeeper. But Rou was in the habit of frequenting waterfront saloons where he was fascinated by tales told by sailors. He longed to become a sailor himself and escape from his uninteresting world. Then something very curious began to happen. He would suddenly lose consciousness and start for the seacoast, doing all sorts of odd jobs to keep himself alive and fit. His unconscious had taken over control and decided to become a sailor. Then at the end of a day, a week, or a month, he would suddenly come to himself, or "wake up," without the slightest knowledge of where he was or how he got there. He would be sent back to Paris and would be quite normal for a period, then once again he would have a "fugue," would walk in his sleep, and start out for the coast. This case we will see is more complex than that of Ansel Bourne in that the subject had recurrent attacks.

There are many other cases which show growing complexity. A very interesting and complex example was carefully studied by Professor Morton Prince, of Harvard—not the same man as the W. F. Prince referred to earlier—the famous Beauchamp case of multiple personality.

Miss Beauchamp was a young nurse in training at a Boston Hospital, when Dr. Prince was called in to take over her case because of her peculiar actions. After long and careful study he made interesting discoveries. Her body contained no less than four distinct personalities. When he first met her she was under the control of the personality he later called BI, or the Angel. As such, she was a very sickly, nervous, highly religious, overconscientious

type, easily tired and always worrying over the sins of humanity and her own lost state.

Then another personality made its appearance, BIII, Sally, or the Imp. Sally was a totally different proposition. She was a girl of eight or nine, absolutely irresponsible, with tireless energy and apparently no conscience whatsoever. Sally was always present but generally as an unconscious personality, "squeezed" by the Angel, as she said. She knew everything that was going on and thoroughly hated the other personality that insisted on taking the body to church, or keeping it quietly in its room while she, Sally, could think of far more interesting things to do. This was because Sally could not usually get control of the body. But as the condition became worse, as the dissociation became more marked, Sally found it easier and easier to take over charge and then, ah then, she had a delicious revenge.

The Angel loathed even the appearance of sin. Sally was not by any means so conscientious. One of her delights was to take the body out on a wild "party" including beer and young men. Then she would suddenly withdraw, leave the body to the Angel and watch her squirm as she got herself back to the hospital. This case occurred in the early 1900's, when the morals of the country made such a situation even worse than today.

Then again, Sally was tireless, the Angel fatigued very easily. Sally could go for a five-mile walk and end fresh as a daisy. Five hundreds yards would leave the Angel exhausted, so Sally would get control of the body, take it on a particularly long walk and then withdraw, enjoying the tortures which the Angel suffered in getting herself back home again.

The Angel also prided herself on being very neat as to clothes and room. This gave Sally a glorious opening. When especially displeased with the Angel, she would take over control of the body and then wreck the room, turning the drawers inside out and piling everything in a heap in the middle of the floor. All these little tricks Sally used as a club over the Angel. In other words, "Don't take the body to church, or else! Do as I say, and I'll leave you some peace, be obstinate and I'll turn on the heat."

The reader will please note that this is not a case taken from a novel, such as Dr. Jekyll and Mr. Hyde, but is an actual situa-

tion reported by one of our ablest psychiatrists. If the reader wishes further details, we refer him to Dr. Prince's book, *The Dissociation of a Personality.*

But we are not yet through. Dr. Prince discovered that a third personality was appearing, namely, BIV or the Woman. It is curious that neither the Angel nor the Woman was actually conscious of Sally's thoughts and actions. Sally communicated with them, or rather delivered her ultimatums, by letter. The Woman and the Angel were not conscious of each other. But Sally, from her position, was aware of the thoughts and actions of the other two. As we said before, these cases of multiple personality can be very complex.

The Woman had a different personality from either of the others. She was headstrong, vain and spiteful. Moreover, she insisted on taking the body to such places as exclusive shops and good concerts, which Sally loathed. So Sally started a campaign against this new menace, but discovered that the Woman was much harder to handle than the Angel. She tried her tricks but they did not work. She made a jumble of the Woman's clothes, and piled them on the floor. The Woman promptly took Sally's toys and threw them into the fire. The conflict was short and sharp, ending in an armistice with both sides in a position of armed neutrality. They both occupied the same body, so there were definite limits to which either could go. Sally would cheerfully have cut off the Woman's nose but she would have been literally spiting her own face. It happened to be her nose as well.

Then Dr. Prince made another discovery, and here we find again the association between hypnotism and these various states of dissociation. If he hypnotized either BI, the Angel, or BIV, the Woman, he got a new personality, BII, which had all the memories of both. Moreover, this new individual was a much more evenly balanced person than the other two, more of a mature woman. This led Prince to conclude that this was the real Miss Beauchamp, that the Angel and the Woman were only halves, so to speak, of BII.

Yet whenever he awakened BII, he always got BI or BIV. However, with persistence and by insisting in hypnotism that BII should awaken with the memories of both the Angel and the Woman, he finally succeeded in awakening BII as the real Miss

Beauchamp. And Sally? She could not be included in the personality synthesis. By means of hypnotism she was robbed of her power to control the body and was "squeezed" back into her corner where she could no longer trouble the real Miss Beauchamp. That involves a question in ethics. Sally was a real personality. To what extent was Prince guilty of psychological murder, so to speak?

Now we wish to make a point which will show how and why hypnotism is of use in cases of multiple personality: that they are caused by a form of hypnotism in the first place! We will see that emotional shock produces exactly the same results as hypnotism, that hypnotism may in reality be a form of emotional shock. We are not clear on this point, but we do know that shock gives us the phenomena of hypnotism and vice versa.

If we read over the Beauchamp case or other such cases we will see that the condition has been caused by some severe emotional strain. What actually happened in the Beauchamp case appears to have been somewhat as follows. There was a period of extreme fear in childhood and at about the age of seven she received a bad fright from her father. This "split" the personality into the Sally, or BIII, and the BII parts. Sally remained the childish creature she was at that time, as a "co-conscious" personality, while BII continued her development. Then around the age of eighteen came another great shock, this time in connection with her love life, when BII split into BI, the Angel, and BIV, the Woman.

The reader will recall that BI or BIV when hypnotized gave BII. The cure consisted of binding these personalities together again, by means of hypnotism, into the BII stage and then in being able to make this personality strong enough so that it would still remain BII on awakening and not return to BI or BIV. But BIII, or Sally, had had too long and independent an existence. It proved impossible to unite her personality with that of BII, so the only way of solving this problem was to repress her completely. This interesting study by Dr. Prince is accepted as valid in psychological circles.

When Dr. Prince was investigating the Beauchamp case, a namesake of his on the west coast, Dr. W. F. Prince, was also making a very important contribution to this subject of multiple personality and its close relationship to hypnotism, perhaps unwit-

tingly, as we shall see. The reader must be careful not to confuse these two men, for they were friendly enemies during their entire lives. W. F. Prince passed his later years in Boston so that, with Morton Prince at Harvard, they could really quarrel to their hearts' content. Both, we should add, were men of the very highest ability, names that are respected and honored in the history of psychology.

Dr. W. F. Prince was probably America's greatest authority on psychic research, or spiritism, for the last ten or fifteen years before his death. Yet he conducted his research in this very difficult subject in such a way as to hold the respect of science. This is the more remarkable when we bear in mind that his, of all fields, is open to suspicion of fraud, prejudice, and poor scientific methods. His writings, found in the publications of the Boston Society for Psychic Research and the American and British Societies, are always characterized by moderation and a keen sense of scientific judgment.

The contribution of W. F. Prince to the subject of multiple personality came about somewhat as follows. Dr. Morton Prince was receiving great publicity in scientific circles for his excellent work with Miss Beauchamp, for in the early 1900's his was pioneering work. W. F. Prince, in his ceaseless search for the best spiritistic medium, was working with a girl, Doris Fischer. He was astonished to find that Miss Fischer was also a case of multiple personality and following the technique of the Harvard man, he used hypnotism to investigate his very interesting subject. Again to his astonishment, this case developed in almost identical fashion to that of Miss Beauchamp. There was a Sally, an Angel, and a Woman, although W. F. Prince did not use these names. In the course of the treatment, he cured the condition in a fashion similar to that used by Morton Prince. His Angel and his Woman were brought together as the real Miss Fischer through hypnotism, while his Sally was "squeezed" into oblivion. Eventually he adopted Miss Fischer as his own daughter. After the cure she gave every appearance of being a healthy, well-balanced personality.

### *A Mistake That Paid Off*

Now we come to the real significance of this case: it is that W. F. Prince, a most careful investigator, almost certainly created

this case of multiple personality through the use of hypnotism, although this result was unintentional on his part. This is a striking example of the effects which operator-attitude may have. We can reconstruct the process. Miss Fischer was an excellent hypnotic subject and of more than average intelligence. Morton Prince was just publishing his remarkable Beauchamp case. Dr. W. F. Prince was very much interested in this, doubtless the Beauchamp literature was lying around, and he probably discussed the case in Miss Fischer's presence. He certainly had in his own mind a very clear-cut image of how the Beauchamp case was progressing.

Somehow this picture was conveyed to the subject's mind, through her own reading, or his discussion, or through hints which he let drop. This is almost certain because these cases of multiple personality simply do not follow a fixed pattern. The many examples we have in the literature are extremely varied as to number and type of personalities. That two such complex cases should occur independently along identical lines is almost impossible. The evidence is all in favor of the fact that the Doris Fischer case was built up on the spot.

There are some who even claim that the Beauchamp case itself was at least guided in its development by the use of hypnotism. Even as late as 1905 or 1910 we did not know much about the importance which operator-attitude may assume. If two men of this capacity could be deceived, the reader will see our reasons for questioning a great deal of the experiments reported by early investigators.

### *A Note on Spiritism*

The work of the two Princes carries us further into hypnotism and multiple personality. It sheds some very interesting light on the problems presented by spiritism, the argument here centering around the famous spirit medium, Mrs. Chenoweth. The reader will find her work discussed at length by W. F. Prince and others in the proceedings of both the American and the British Societies for Psychic Research. She was probably the best "mental" medium in America with the exception of the famous Mrs. Piper, who at the time of this investigation was an old lady.

Mrs. Chenoweth gave the typical picture of the spirit medium

when in trance. She was controlled by the spirit of an Indian girl, "Sunbeam," who had been killed by a fall from a horse, in the West many years ago. Mrs. Chenoweth would sit at her table with the "sitter" on the opposite side. Then she would pass into the trance state and Sunbeam would come to take charge. She would chatter along at a great rate in a girlish voice until the sitter interrupted by reminding her that he was there for a purpose. Then she would suddenly come "down to earth," as it were, and give the sitter information which was supposed to come from the spirit world.

Some of this was very hard to explain unless we admitted supernormal power on the part of the medium. For example, one of the writer's friends reports the following. Sunbeam told him she saw standing beside him the form of his father, who was already dead. The sitter naturally asked how he was to be sure it was his father. To this Sunbeam replied:

"He says for you to carry out the following directions as proof. Go home, go to the cellar, look up his diary for April 16, 1896. There you will find that he bought five acres of land from a Mr. Jones on Long Island."

The sitter went home, looked up the date in the diary and found the entry as described. He says he had never before looked into his father's diary.

Which proves that he was talking to his father? Psychologists might offer several other possibilities to explain it; the medium may have been a fraud, have gotten hold of the diary beforehand and so had the information, although this seems improbable; or the sitter may have spent many hours with that diary as a child, forgotten all about it and the medium may have picked his brains as to this detail.

The writer does not favor either explanation but he is in a definite minority among psychologists, most of whom insist on a "normal," not "supernormal," explanation. But this line of thought tends to close our minds to many interesting possibilities. As one of our greatest scientists said, what we need in science are "preposterous hypotheses." There are some interests within psychology who would place limits on curiosity, who would "tell us what we ought to think about what we ought to think about." The writer does not like it.

Let us see what Dr. Morton Prince said. He was one of the world's best and he also lived near Boston, so that he could easily check up. And he did! His conclusions after investigating Mrs. Chenoweth were that she was a most interesting case of multiple personality—nothing more. "Sunbeam" was a sort of Sally, and the other controls—for there were others—were merely the same thing he had already seen in the case of Miss Beauchamp. They were not visitors from the spirit world communicating with man through the body of Mrs. Chenoweth.

His opinion was thus in flat contradiction to that of W. F. Prince. To be sure, the latter was always very careful in his statements but the writer, who knew both these men, is convinced that Dr. W. F. Prince felt Mrs. Chenoweth did have supernormal abilities. Just how to explain these abilities is a different matter, whether by spirit intervention, telepathy, or clairvoyance.

Our point is this. Here we had possibly the two best men in the world as to qualifications for investigating the outstanding medium in America. Their conclusions were directly contrary, the one leaning toward an explanation in terms of multiple personality, the other strongly inclined to see the supernormal in the revelations of the medium. If two men of this ability could not come to a solution of the problem, we cannot expect too much from ourselves at the present stage of investigation.

The preponderance of psychological opinion is that the mediumistic trance is nothing more than a state produced by autosuggestion, and as such is almost identical with the trance we see in somnambulism. (The writer does not agree with this point of view but he reports it for what it is worth.) Moreover, the consensus is that the various spirit controls are only manifestations of multiple personality, which again is so closely associated with hypnotism. We know that, with hypnosis, we can produce multiple personality. Hypnotism is also recognized as the best means to effect a cure. Furthermore, every case of multiple personality which has been subject to a psychologist's experimentation has always turned out to be an excellent hypnotic subject. If he does not prove to be such, we may take it for granted that he is bluffing, for an attack of multiple personality, a "fugue" such as that suffered in the case of Ansel Bourne, can be easily faked and affords

the "patient" a beautiful "out" when home conditions become unbearable.

The writer was present when Professor William Brown of Oxford attempted to hypnotize one such case which had received wide publicity in the English press. Although one of the world's best operators, he had absolutely no success and promptly stated that he thought the subject had bluffed the whole thing. And such was probably the case.

It is quite impossible to discuss spiritistic phenomena at any length in a book devoted to hypnotism. Space does not permit. The writer refers to his book, *Spiritism*, for a scientific discussion of spiritistic phenomena. He had the opportunity of doing two years' fairly intensive work on psychic research while on scholarship at Harvard under the direction of the late Professor William McDougall and Professor Gardner Murphy, now of the Menninger Clinic, Topeka, Kansas. The reader can look up reference to part of this work in the two excellent books of J. B. Rhine of Duke University, *New Frontiers of the Mind* and *Extrasensory Perception.* So the writer has at least a bowing acquaintance with the field and thinks that his following statements would be regarded as fair by the vast majority of American psychologists.

First, as to the existence of "spiritistic" phenomena: they are definitely unproved. The writer would, however, place himself on record as being far more optimistic here than most of his colleagues. He insists that there are many reports of experiments and of occurrences which cannot be explained by the normal laws of psychology as we now know them. Further, it may be quite impossible to prove "spiritism" by the laboratory method. The cold scientific atmosphere which exudes from any professional psychologist may kill something essential to the manifestation of the supernatural. But that is only a personal opinion and the writer again admits he is in a small minority.

So, first, "unproved." Secondly: why? There are various reasons. Above all else, fraud. This is an acquisitive world and many persons find it very easy to make a comfortable income by capitalizing on the general desire for absolute assurance of a life hereafter, for the ability to communicate with those we love who are now dead. The writer recalls one very interesting and amusing case. He was

attending a spiritistic séance in London, England. During the course of this séance, which was held in very bad light, a chair traveled from one side of the room to the other with no visible means of propulsion. After the meeting came to an end he wandered over to the chair and noticed it had stopped over a hot air register. The answer was obvious. A string down the hot air vent was the cause of the movement.

At the next séance he arrived early and seated himself near the opening in question, hoping that the chair would repeat its performance. It did. So the writer kept his eyes glued on the chair, convinced that sooner or later someone would untie a string. And they—or rather she—did. For when everyone's attention was concentrated on a guitar which was floating over the medium's table, a small hand clothed in a black glove stole out from behind a nearby curtain to untie the string. The writer reached down and shook hands, with no intention of creating a scene. There was a ten-second pause, after which the owner of the hand suddenly thrust a needle into the unwelcome hand. This hurt, so the writer squeezed and pulled, dragging a woman into the middle of the floor. The light immediately came on, the medium had hysterics, and the writer left at once by the window. Only on his way home did he realize he had left his hat behind where it still remains to this day for all he knows.

We divide the mediums into two broad groups: the "physical" mediums and the "mental" mediums. With the physical medium "things happen." Lights float around the room, music is heard, forms materialize, and objects, such as chairs, tables, or guitars, float in mid-air. These séances almost invariably take place in light so weak that it is impossible to detect fraud if such exists. The medium claims that the spirit forces cannot work in light. This also makes fraud very easy. We would point out that the greatest of all physical mediums, D. D. Home, did his work in broad daylight. He produced more startling effects than any medium since; on one occasion he floated out one window and into another six stories above it! And this in excellent light! He did his work over fifty years ago. No one has been able to duplicate it since and so science is naturally skeptical.

Actually the writer is convinced that he could seemingly dupli-

cate everything that D. D. Home did, but it would be a colossal fraud. Suppose he took a dozen good hypnotic subjects and, by means of posthypnotic hallucinations, had them see people floating through the air, flowers materializing, solid objects passing through a table. He obtains their sworn affidavits. To be sure, you could suspect fraud and you would be right. But you would have a hard time proving it.

We are probably on safe ground when we say that the work of the physical medium does not deserve serious consideration from science. No matter how good the "controls" in darkness, there will always be the suspicion of fraud. One English investigator recently tried to use the infrared camera, which takes pictures in darkness by means of rays invisible to the human eye. But again the "spirits" became sensitive and demanded that it be withdrawn. Science cannot waste its time in tiresome investigations under conditions which will always be open to question.

The "mental" medium, on the other hand, gives us a different problem. Here it is a question of messages from the dead, of clairvoyance, or of telepathy. To be sure, there is plenty of fraud among mental mediums but at least they meet us on a fairer basis. They do not demand conditions which, a priori, make investigation impossible. We may divide this "mental" group into the fraudulent and the genuine. For an exposé of the method employed by the fraudulent medium we refer the reader to two books: Abbott, *Behind the Scenes with the Mediums,* and Price and Dingwall, *Revelations of a Spirit Medium.*

The genuine spirit medium is in a class by himself. There can be no doubt of his—or her—sincerity. The "trance" is genuine and the various spirit controls certainly act as if they had nothing to conceal. How, then, does the average psychologist explain the results obtained by such great mediums as Mrs. Piper, Mrs. Leonard, or Mrs. Chenoweth?

The explanations are somewhat as follows. In the first place the trance is an excellent example of autohypnosis. The spiritistic trance and the hypnotic trance are identical to all intents and purposes. One is induced by the subject himself, the other with the aid of an operator. Who are the spirit "controls" such as "Sunbeam" who take over the control of the body during these séances, re-

porting messages from the spirit world and describing the various dead friends whom we call for? Simply the various personalities in a case of multiple personality, which as we have seen is so closely related to hypnotism.

The messages we receive? That is another question. In the writer's opinion it is a question with not nearly so convincing an answer as the first two. First, we have the possibility of unintended cues and of great sense acuity on the part of the medium, or at least great concentration on tiny details as we mentioned in the case where the subject finds his mother's "picture." Remember that the hypnotic and mediumistic trance are essentially the same. What applies to one will hold for the other. For example, the writer was conducting some card reading experiments with a very intelligent sitter. The subject, not in hypnotism, was trying to guess the playing card on which the operator was concentrating. The operator cut the jack of hearts and the subject immediately named the card correctly. Then he added, "I'm sure of that one."

"Why?"

"I heard you whisper it." Yet the writer would have sworn he had made no sound.

He found this occurring several times with this subject and also in isolated cases with other subjects. Now, in theory, this subject may have had very acute hearing quite apart from hypnotic or mediumistic trance. We know from psychology that thought generally involves tiny speech movements. The thinker literally "talks to himself." It might be that some people have such extraordinarily keen hearing that they could pick up these unconscious and very tiny sounds, and so receive some very valuable information. Far-fetched, perhaps, but possible.

This also would apply to the sense of vision, and even more so to the sense of touch. Some mediums ask to hold the sitter's hand. We all have at least heard of the marvelous ability of some people at "muscle reading." Suffice it here to say that this ability seems quite genuine and is accepted by psychology. Here the medium could possibly pick up expression of assent or dissent through muscle "twitches." This may be hard to accept, but it has its points.

More important, possibly, than either of these is the subject's recognition of changes in the sitter's face. Those subtle expressions

which would tell her when she is "hot" or "cold," as she starts out to make a statement. Here again some people may have this power of discrimination developed to a very high degree, much higher than that found in the average.

Then again we find that some mediums are expert at "fishing" for information. They will throw out a hint or suggestion, watch the sitter's reactions very closely and immediately follow up with "No, that's wrong," if the sitter seems to register disapproval. If the suggestion is acceptable, they will at once follow up cautiously, feeling their way, fishing for information, and get results which are quite astonishing. All this is without the sitter's being in any way aware of what is taking place.

The psychologist also has a very potent criticism against the sitter himself. The human memory is very unreliable. For a fine treatise on just how unreliable, read the book by Hugo Münsterberg, *On the Witness Stand.* We cannot accept any reports of a mediumistic séance unless a highly competent secretary was present and took down all the proceedings in shorthand.

The writer had a case which illustrated this in very fine style. A friend of his had a sitting with Mrs. Chenoweth. He came away enthusiastic, reporting that the medium had given him fine evidence that she was actually talking with his father. The writer had this friend hand in a written report on the sitting, and then proceeded to "work" on him for the next two weeks with a view to making him change his story. Certain parts were greatly magnified during various conversations, others were completely omitted, certain new details were seized on and inserted.

At the end of this two weeks' period the sitter was asked for another report on the plea that the former one had unfortunately been lost. The two reports turned out to be very different, so different, in fact, that they were quite worthless as evidence. The average sitter does not realize how unreliable his own memory is or how his memory of the séance may be changed by later additions and subtractions. So, in scientific investigation, we always insist on a secretarial report of what has taken place at a sitting with the "mental" medium.

Yet, for all these objections, the writer still feels that there are many points which have not been cleared up. Read, for example,

CHAPTER VI

# *The Basic Nature of Hypnotism*

First let us give a little history, largely for the purpose of showing us what hypnotism is not. Sorcery, black magic, witches, wizards: the medieval European had very definite ideas on such subjects. Action resulting from those ideas could be pretty grim for the culprit. Even in seventeenth century America, the Puritans of Massachusetts hanged their witches, although we tend to associate such persecutions with the Catholic Church of some centuries ago, in European countries.

A German story shows how, at least in one instance, the victim turned the tables on his persecutors in tragic style. A German was to be tried for sorcery. He was an alchemist, one of those very early chemists who were regarded as the blackest of the black. He realized he had no chance of escape. He wrote his daughter, asking her to come and watch the proceedings.

Half a dozen judges presided at the trial under the chairmanship of a prince. The culprit was brought in and formally accused of being a wizard. He at once pleaded guilty. But with the victim safely convicted, his judges decided to get some information. Very famous in these days was the "witch's supper" at which all these people were supposed to gather and plot against honest men. So one of the judges asked the victim, since he admitted his guilt, to tell them when the witches had last met.

"Sunday at midnight."

"Will you describe it to us?"

"I would gladly, but why waste time? You were there yourself."

"I was not!"

"You certainly were. You and these other two judges," singling out two more whom he particularly disliked. "Prince, I accuse these three men of wizardry." Then he went on to describe a weird scene in which he, the three accused, and the other witches were

plotting to spread a terrible pestilence over the whole state. Result?

"Burn the lot of them," said the Prince.

We imagine that questions were a little more discreet from then on.

We can say definitely that hypnotism has nothing to do with black magic, or with the supernatural. It is a respected branch of science, operating under laws with which many are reasonably familiar, investigated by men who are scientists in the best sense of the word. To be sure, many people make some pretty weird claims as to its nature and as to results which can be obtained, but chemistry, astronomy, and medicine all passed through this stage until the public learned to separate the wheat from the chaff.

Actually we can trace hypnotism back thousands of years, right into the primitive beliefs of our savage predecessors. Not as hypnotism, but as part of their religious and mystic ceremonies. For example, in the initiation ceremony of the Chippewa Indians we have as fine a form of group hypnotism as the best operator could demand. The boys, at initiation, were lulled into a magic sleep by the chanting of the medicine man and were there instructed in tribal customs. Some even developed anesthesia to pain and later performed prodigies of valor without feeling their own wounds.

The Indian knew nothing of the scientific laws governing the hypnotic state and while he used it most effectively it was always linked with the supernatural. So also were the sleep-temples of ancient Egypt. To these the sufferer would come, would be thrown into trance by the priest and while in trance would be visited by the various gods who were the patron saints of medicine. These temples later spread into Greece and Asia Minor, and represent a very interesting stage in the development of hypnotism. The practices used appear to have vanished completely with the arrival of the Christian era.

Nothing much could be done about the study of hypnotism until the dawn of the scientific era about 1750. Up to that time human prejudice against anything savoring of what were regarded as "black arts" was so intense that the investigator literally took his life in his hands. Ruthless brutality in the suppression of such in-

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Nothing much could be done about the study of hypnotism until the dawn of the scientific era about 1750. Up to that time human prejudice against anything savoring of what were regarded as "black arts" was so intense that the investigator literally took his life in his hands. Ruthless brutality in the suppression of such in-

vestigation was the order of the day until man attained a certain freedom in thought and action.

### *Mesmerism*

The scientific study of hypnotism begins with a Viennese doctor named Mesmer who lived during the American Revolution. As a matter of fact, Benjamin Franklin, when he was our ambassador to France, sat on a board of the French Academy of Medicine which pronounced Mesmer a fraud and drove him from Paris.

Actually this man was not a fraud in any sense of the word. His ideas are weird as we read them 180 years after his time, but Mesmer was probably quite sincere in all his statements. He lived at the dawn of medical science, at a time when Franklin himself said, "There are good doctors and bad doctors but the best doctor is no doctor."

But Mesmer contributed practically nothing to the science of hypnotism. Clark L. Hull, in his book, *Hypnosis and Suggestibility*, says, "His theories are of very considerable interest to the historian of the growth of science, perhaps not so much for the amount of truth they contained as because it has taken the world such a long time to separate the grain of truth from its enormous husk of error."

The University of Vienna at that time had perhaps the world's best medical school. Here, in 1766, Mesmer wrote his medical thesis on the influence of the planets upon the bodies of men! Today no medical school in the world would consider such trash, but times have changed. Then anesthesia was unknown, the germ theory was still one hundred years in the future and insanity was the work of the devil. So we must judge Mesmer in the light of his times, a capable doctor who dared to blaze a new trail and who was master of the medical knowledge of his time, such as it was. He had a very shrewd financial eye and used his knowledge to fill his own purse. But that is not unheard of even in this enlightened twentieth century.

Mesmer was a very keen observer. The principle of the magnet with its two poles was just being investigated. He noted that the magnet—like the planets—could exert its influence at a distance. So he worked out his theory. The human body, with its two sides, was like a magnet, with its two poles. Disease was caused by an im-

proper distribution of the magnetic fluid, the animal magnetism which this living magnet threw off, and to cure disease we had to restore the balance, so to speak.

This animal magnetism was a gas or fluid, therefore somewhat different from that of the minerals. It was under the control of the human will, hence to this day we have the tradition of "will power" in hypnotism. To direct its flow the individual must concentrate with all his strength and look his victim firmly in the eye. Hence the "dark hypnotic eye." Then as it flowed largely from the hand, the operator would make long passes over the body of his patient, from his head to his toes, passing the fluid into the sufferer's body. Should the subject go into a trance, he was awakened by reversing the process. The passes went from toes to head, so withdrawing the influence. Mesmer actually never got quite this far, but this was the standard practice of his immediate followers, the "Mesmerists," and we see many of these practices still used by the stage hypnotist.

The magnetic fluid was supposed to be quite visible—to some people. Many "sensitives" could actually see it streaming from the eyes and hands of the operator. Of course, this was simply a visual hallucination, now so well known in hypnotism. But in Mesmer's time no one realized that such a thing existed so there was no reason to reject the word of those somnambulists who reported and described the fluid in question.

This fluid had many interesting qualities. It could be reflected by mirrors. It could operate at a distance. More interesting, it could be confined in a bottle and shipped to a sufferer in any part of the world. Most interesting of all, any good "magnetist" could magnetize any object, generally a tree in the village green. Then the whole village could gather round this tree, receive the benefits of Mesmer's great discovery—and the operator could collect his fee.

Mesmer's own clinic in Paris deserves special mention, for it must have been a remarkable sight. The large hall was darkened and soft plaintive music accompanied the treatment. Here was the famous *baquet,* a huge open tub about a foot high, large enough for thirty people to stand around for treatments. The tub itself was filled with water, bottles arranged in a symmetrical order, iron filings and ground glass. The whole thing was pro-

vided with a wooden cover and through this cover came jointed iron rods which the patients applied to their ailing parts. Mesmer himself would appear at the right moment in a robe of brilliant silk, passing his hands over the patients, fixing them with his gaze and touching them with his iron wand. People suffering from all kinds of sicknesses were cured after a few such treatments. This is, of course, exactly what we would expect from our present knowledge of hypnotism.

Mesmer's success was probably his undoing, for he drew much trade away from the regular doctors. These only needed some excuse to vent their spleen and the opportunity came in 1784, when the French Government appointed a commission—including Franklin—to investigate the whole thing. The commission pronounced Mesmer a fraud. Immediately his popularity fell off and he left Paris shortly afterward. This verdict meant very little when we consider the ignorance of most eighteenth century doctors. Vesalius was almost burned at the stake when, a little before this time, he insisted on cutting up human corpses to study anatomy. After Leeuvenhoek discovered the microscope and described germs it took two hundred years and the genius of a Pasteur for "science" to recognize that they might be of importance. So, even had Mesmer been right, the verdict would probably have been the same. It so happened he was wrong—but honestly wrong.

But, as we said before, Mesmer contributed practically nothing to modern hypnotism. His theories were completely wrong and most of his pupils followed blindly in his lead. He did, however, "throw the fat in the fire," so to speak. Once he had offered his technique, it was almost impossible not to stumble on the phenomena of modern hypnotism. It took one hundred years for the story to unravel itself and we still know little about many important phases. This illustrates the slow pace at which science must progress.

So we may make a further statement as to the basic nature of hypnotism, a negative statement but important. It does not involve "animal magnetism" which calls for a magnetic fluid passing from operator to subject. Neither has it any place for "will power" to control this fluid, the "dark hypnotic eye" or the "hypnotic pass" to direct it. Yet Alrutz and Boirac, in Norway, still cling to the

theory of animal magnetism, and the general public feel that will power is still an important factor.

Mesmer did not hypnotize or try to hypnotize his subjects. Nevertheless some of them went into spontaneous hysterical convulsion as they received treatment around the tub. These convulsive attacks came more and more into the limelight. A report from the Royal Society of Medicine at this time says, "From a curative point of view animal magnetism is nothing but the art of making sensitive people fall into convulsions."

In 1784 one of Mesmer's pupils, the Marquis de Puységur, stumbled across genuine hypnotic somnambulism. He "magnetized" a young shepherd, Victor, but this boy fell into a quiet sleeping trance instead of into the usual convulsive attack. In this state he went about his business and when he "awakened" knew nothing of what had happened. This was something entirely new and, as such, immediately attracted great attention. Mesmerism, by sheer accident, was on its way to becoming hypnotism. The main interest in this new phenomenon of somnambulism was mystic. The subject was supposed to develop clairvoyant powers, to have the gift of thought transference, even to speak with the dead. At the same time the mesmerists were getting dangerously near the truth, so near that discovery of the real facts was just a matter of time. By 1825 hallucinations, anesthesia and the posthypnotic suggestion had all been described. Yet progress was painfully slow.

One of the greatest figures in these days was an Englishman named Braid. He did his early work in the 1840's, first used the term hypnotism, rejected completely the idea of the magnetic fluid and saw that hypnotism was something quite different from ordinary sleep. He also invented an hypnotic technique, still used by many operators, that of gazing at a bright object held in such a position as to strain the eyes.

But a weird mixture of truth and absurd error was still prevalent. Phrenology was then in vogue and Braid supported the theory known as phreno-magnetism. He found that if he pressed the "bump" of pugnacity, his subjects would promptly want to fight; if it were the bump of reverence, the subject might fall on his knees and pray. In his later writings he saw the absurdity of these claims and even appears to have hit the real keynote of hypnotism,

namely, suggestibility. Braid was more or less the voice of one crying in the wilderness. After his death there was no further immediate interest in hypnotism in England.

The English have always been a little discouraging in this whole field of psychology. A really great man appears, a Braid, Galton or Darwin, either in psychology or some related field, but no one follows through. The French, on the other hand, for the last one hundred and fifty years have done and are still doing excellent, consistent work, especially in the field of abnormal psychology, of which hypnotism is one branch.

Around 1815, the Abbé Faria made a very important discovery. If the prospective subjects were seated around the room and allowed to relax, then the operator had merely to repeat the word "sleep" several times in an impressive voice. Certain of those present would at once fall into somnambulism.

### *The Father of Modern Hypnotism*

This was a very important step and the French investigation finally ended in the work of Liébeault, the real father of modern hypnotism.

This man was one of those peculiar people who mark off the milestones in science. A physician, he settled at Nancy, France, in 1864. Here he proceeded to practice hypnotism among the poor, refusing any fees for his services. He even wrote a book, setting forth his theories on the subject—and sold exactly one copy.

But that did not discourage Liébeault. For twenty years he kept at his task. Then, fortunately, he won the enmity of a great French physician, Bernheim, a professor in the medical school at Nancy. Bernheim for six months had been treating a patient suffering from sciatica, with no success whatsoever. In desperation this patient turned to Liébeault, who quickly cured him by means of hypnotism. This, to Bernheim, was a professional insult. He knew of Liébeault, a man from "across the railroad tracks," in a medical sense, thought him a "quack" and decided he would expose this medical menace. So he visited his enemy's clinic—and realized that Liébeault was really a genius. Bernheim immediately began a serious study of hypnotism and for the next twenty years devoted all his great talents to serious work along these lines. His position

gave the subject respectable standing and to his eternal honor, he never overlooked an opportunity of directing attention to Liébeault. The latter even sold the remaining copies of his book!

Bernheim realized that the key to hypnotism was suggestion. A doctor, his main interest was along medical lines and his great book, *Suggestive Therapeutics*, covers this field in great detail. This work stands in a class by itself, surpassed only by the recent book by Clark L. Hull, of Yale University, to which we referred earlier. Hull, as a psychologist, had a much wider range of interest than did Bernheim, so he broadened the field and attacked the problems with modern experimental methods.

The book by Hull is of great importance because of a shift in emphasis. Up to 1935 the vast majority of work in the field of hypnotism had been done by medical men. Hull's work brought it into the psychological laboratory and the problems he investigated had nothing immediately to do with medicine, such problems as susceptibility to hypnotism, the posthypnotic suggestion, learning in hypnotism, the nature and extent of hypnotic amnesia. This approach opened a whole new field which up to then had been woefully neglected.

Returning to the work of Bernheim: he perfected the "sleeping technique" now so widely used in laboratory practice and described carefully all the phenomena which we have noted in Chapter III of this work.

But animal magnetism, like the cat, proved to have the proverbial nine lives. While Bernheim was doing his great work in Nancy, France, another Frenchman, Charcot, was investigating hypnotism in Paris. Charcot gives us a classic example of what may happen when an authority in one field attempts work in another. One of the world's great anatomists and neurologists, Charcot did pioneer work in these fields, work of the very highest grade. In hypnotism he made about every possible mistake. This is the more amazing because Bernheim, also in France, pointed out these errors as they occurred.

Major hypnotism, as Charcot labeled *his* discovery, showed three sharply marked stages: lethargy, catalepsy and somnambulism. In the first, induced by closing the subject's eyes, he could neither hear nor speak. If now the subject's eyes were opened he—

or rather she, for he worked only with women—was still unable to hear or speak. But in this cataleptic stage the limbs would remain in any position in which they were placed. Finally, if the top of the head were rubbed somnambulism was induced. This was practically the same as the trance described by Bernheim.

Many of the results obtained by Charcot were amazing and can be attributed to his complete ignorance of operator-attitude. He, like Mesmer one hundred years previously, was convinced that the magnet and the principle of magnetism explained everything. If the subject had a paralysis or a contracture in his right leg, then, if a magnet were brought close to the leg it would immediately shift to the left. More interesting, certain drugs could make their power felt right through a corked bottle. A closed phial of alcohol held near the subject's head would give the proverbial "jag," certainly an inexpensive way of going on a spree.

Bernheim showed that all these curious effects could be produced when they were described in the subject's presence; it will be recalled that Charcot maintained that his subjects were completely deaf in his first two stages. How a man of his scientific skill could have made such a childish slip is difficult to see, but he did. Bernheim produced all Charcot's phenomena by this means, then went a step further. He substituted for the magnet a pencil, a piece of paper or nothing at all, but he got just as good results. In other words, the subject knew what was expected and obliged.

In vain did Bernheim point out to Charcot that the subject in hypnotism is never deaf, is always on the alert for any suggestion. Charcot sailed serenely on. More amazing still is the fact that his great pupil, Alfred Binet, sailed right along with him—another classic example of how the greatest minds may be blinded by prejudice. For Binet was a great mind, the father of the Binet-Simon test, one of the greatest contributions to psychology, and the author of *La Suggestibilité,* an original and scientific work. Yet with Féré he published, in 1888, his book, *Animal Magnetism.* This was no doubt inspired by Bernheim's own work, *Suggestive Therapeutics,* which came off the press two years before. Binet rose in defense of his beloved master, Charcot, running a series of experiments intended to prove beyond any question that Charcot was right.

Hull, who is objective on all subjects, wrote as follows, in *Hypnosis and Suggestibility,* on this attempt of Binet: "Even so, the fact remains that there has rarely been written a book containing a greater aggregation of results from wretched experiments, all put forward with loud protestations of impeccable scientific procedure and buttressed by the most transparent sophistries, than this work of Binet and Féré." It is curious indeed that two really great men, Charcot and Binet, could have made such grotesque errors even in an unfamiliar field.

Bernheim and his "Nancy School" finally laid the ghost of animal magnetism, although every so often we find some operator who is still a follower, at least in part, of Charcot's teaching. One of these was Professor William Brown of Oxford, a psychologist of excellent repute. He did not for one moment support Charcot's crude ideas of magnetism but did follow the "Paris School" in one interesting and rather important detail. Charcot worked only with hysterical women patients, and advanced the theory that hypnotism was a symptom of hysteria. This Bernheim vehemently denied and his views are almost universally accepted.

Nevertheless Brown held to this attitude and his opinions are certainly entitled to consideration. The writer, one of Brown's former pupils, feels that he was wrong in this stand. The Oxford psychologist was really a psychiatrist. It is just possible that too much association with mental disease gave Professor Brown a bias in this direction, a tendency to regard everything abnormal as symptomatic of a sick personality. The great majority of psychologists would point out that good hypnotic subjects, as a rule, seem to be very normal people. To be sure, certain signs of dissociation, such as automatic writing, sleepwalking, even hysteria, generally indicate a good subject. But most people who can be put into trance have no such history. Brown would reply that, in these cases, they are "potential" hysterics; and the dispute must rest there until we have more evidence.

Bernheim himself made one serious error. He linked hypnotism with sleep, regarding the trance as a special form of normal sleep. This is a very natural mistake to make, one into which Pavlov, the great Russian psychologist, also fell. But if the reader cares to look up the experimental evidence on the subject, as set forth by

Hull, he will be convinced that sleep and hypnosis have very little in common. The subject is so much "awake" that it would be impossible for an observer to detect anything wrong, especially when a subject has been coached to act "normal." Moreover, if we test the person in trance we find that he is quite normal in such things as the conditioned reflex, memory span, psychogalvanic reflex and other psychological tests.

Confusion here is very easy, especially when the "sleeping" technique is used to induce hypnotism and the subject is not allowed to move about. Actually, many subjects will go into genuine sleep, even snore and lose all touch with the operator. When told to awaken they sleep serenely on, but awaken quite easily if the operator gives them a slight shake. So the mistake of Bernheim, Pavlov and many others was quite natural. We needed the modern experimental laboratory to clear up the fog on this point.

Yet, in spite of excellent equipment, the Russians today persist in some curious errors. Pavlov's statements represent the "party line" and are sacred. So, first, hypnotism is merely a form of sleep. Secondly, animal and human hypnotism are identical. Thirdly, all hypnotic phenomena must be explained in terms of physiology. Fourthly, psychoanalysis is "reactionary" and therefore taboo. Free research, as we understand it, is simply impossible. You hew to the party line—or else.

Bernheim was familiar with and described in detail every phenomenon of hypnotism at least in so far as his times and his interests permitted. Such modern psychological problems as the formation of conditioned reflexes under hypnosis he very naturally does not mention. And he was essentially a doctor, interested in curing patients. Here he was eminently successful. But by the same token he was not interested in the possible uses of hypnotism in education, or warfare. Such problems were completely outside his field. Yet, strange to say, he did read a paper at Moscow, in 1896, on the subject of hypnotism and crime. He was outside his field and the paper shows it. As has been mentioned, practically all of these early authorities, around the close of the nineteenth century, were medical men, their outlook was essentially that of Bernheim, so they left many a fascinating unsolved problem to be probed by modern psychology.

Suggestion is undoubtedly the key to hypnotism. However, from the theoretical point of view, we are today faced with a very interesting problem. Is it suggestion or dissociation which is really the fundamental cause of hypnosis? Does suggestion cause dissociation as illustrated in automatic writing, speaking with tongues and in other hypnotic phenomena, or is it a tendency toward dissociation which makes the good hypnotic subject so suggestible? The writer feels that suggestion is basic. For unknown reasons an individual is highly suggestible and dissociation comes as a secondary phenomenon, caused by this peculiarity in personality. But the issue is still open and we regard it as purely theoretical. We can allow the professional psychologist to ferret out the answer and can proceed with our discussion. We can also leave to him that very vexing problem as to whether all suggestion is really autosuggestion, as Coué maintained.

For our purpose we can say that hypnotism is merely a state of exaggerated suggestibility, induced by artificial means. The vast majority of psychologists would accept this formula, with of course the usual reservations. We do not know what causes suggestibility. Is it acquired or inherited? Does it depend on dissociation or vice versa? We will admit our ignorance and proceed from the assumption that suggestion is the key to hypnosis.

W. R. White of Harvard concludes that the explanation of hypnotism lies in suggestion.

There are other causes of high suggestibility besides hypnosis. These are very evident in our everyday life, in fact they are all-important. What is the relation of hypnotism to these other factors? Is it not perhaps possible to explain all with one general formula? As was mentioned earlier, might we not, using hypnotism as a point of departure, be able to understand the phenomenon of Hitler, the basis of mob psychology?

### *A Theory*

With this end in view the writer advances the theory outlined in the next few pages. Hypnotism may be of fascinating interest, but if it has no use outside the psychological laboratory, or in handling the insane, it must, of necessity, be of very little practical use to humanity as a whole. But if we can advance a simple work-

ing theory which explains both hypnotism and, say, the Dictator in the modern sense, at one and the same time, then we are being of much greater service to the general public.

In our opinion we can do so and the reader is asked to give special attention to the following pages of this chapter. The hypothesis we advance is intended to cover the subject in very simple fashion. We purposely avoid many fine psychological questions as being of interest only to the professional psychologist. This leaves us open to the charge of oversimplification but a popular work such as this must view the question "writ large." The details we leave for those round-table discussions wherein men of science delight to go scalp hunting. As a matter of fact the Iroquois raider and the scientist are twin brothers. Scalp hunting is the great national pastime and a very legitimate pastime at that. If the scientist "leads with his chin," he may be perfectly certain that, before many harvest moons have passed, he will be defending the old log cabin against the marauding hordes. That is all to the good. It keeps him on his toes and guarantees scientific progress.

The writer would point out, that, in so far as he is aware, he has originated the following theory. This matter of point of origins is always difficult to decide. We can say that, as here stated and applied specifically to hypnotism, the theory is original.

Let us consider the human brain as a very complex photographic plate. The analogy is crude but it will serve as an illustration. It is a repeater in the sense that photos are being registered every moment of our waking existence, and by all the various sense organs of sight, hearing, smell, taste, skin senses and others which are more obscure. We, however, are interested in one peculiarity of this plate which is of great importance. It is provided with its own sensitizer. Most of the photographs, the experiences of everyday life, are more or less on a dead level. They make a certain impression, we note it and act accordingly, then we probably forget the photo in question for the rest of our natural lives.

But some photographs—experiences—leave a lasting impression. Five years ago we were in an auto crash. Why should we remember that vividly but not be able to recall anything else for that entire year, at least not recall without an effort. Just common sense? Possibly, but why? We distinctly and vividly recall that at the

age of five or six or seven we were bitten by a police dog while visiting our uncle's farm. We will have to think in order to recall any other details of that visit yet the dog experience keeps flashing through our mind even when we don't think. Again it may be just common sense, but why?

Because at that particular moment the sensitive plate in the brain was vastly more sensitive than at any other time during the whole year. The negative was "over exposed," to draw another analogy from photography and the photo indelibly burned into the plate. Nothing we can do in later life will ever remove that scar. All other experiences of that entire year may become cloudy, may finally disappear completely so far as we are concerned, but every time we see a police dog that old experience of thirty or fifty years ago stands out as vividly as if it were yesterday.

Moreover, as we will see in later chapters, these are just the experiences which really count. They determine our personalities. We could take an entire college course on dogs, could meet all kinds of dogs anywhere. We might even write a book on dogs. But we know one thing for certain, we do not like the police dog. Why? Because one bit us fifty years ago. It might just as well have been a collie or a bull, but it wasn't. Logic has nothing to do with the situation. It was a police dog so they are damned in our eyes for all eternity.

It is this type of nonlogical, highly emotional reaction which makes the world go round, which leads us into the state of chaos which exists at the present day. For society is essentially groups of human beings. In many cases, all members of a given group take their cue from some one leader. Should this leader be unbalanced, overambitious, or a weakling, then all too often his followers will be sacrificed at the altar of his fanaticism or his incompetence.

There are, as far as the writer can see, two known devices by which the brain plate can be sensitized. One is hypnotism, the other is emotion. Suggestions given in hypnotism or under emotional strain are carried out with an energy which is quite foreign to normal human conduct. The reader will note that suggestion does not have to be verbal nor recognized as suggestion at the time. Any experience flashing on the mind at such times may act as a suggestion. In hypnotism these are generally by the spoken word, but

in everyday life this is far from being the case. The police dog incident was a very strong suggestion. The newspaper is one of the most powerful of suggestive media, especially in a controlled press. The controlled radio was easily the most potent weapon we had for attaining such ends in our modern civilization. Now TV has probably replaced it with the coming of color TV. Our broadcasts from the national conventions illustrate this point. Fortunately those coming from one party are largely offset by those from the other. Were they strictly controlled by one party, as in a dictatorship, results would be disastrous for free thought.

What has all this to do with hypnotism? Let us take a little excursion into psychology for the next few pages and perhaps we can then see the very close association between hypnotic suggestion and the type of suggestion which is so potent in our daily lives, the suggestion which falls on a brain sensitized by emotion.

The writer wishes to insert a note in self-defense. When he uses the concepts of the pleasure principle and of the instinct in the following pages, he is quite aware that these terms are under active discussion in modern psychology. He still prefers to use them until the fog has cleared. Psychology has officially thrown instinct out the front door, then given it a new name and welcomed it back by the kitchen entrance.

The great driving force behind all animal activity is the pleasure-pain principle, the search for pleasure, the avoidance of pain. No normal human being will deliberately step on a tack, unless of course there is a higher pleasure involved. If his child is in danger of being burned to death he may not only step on a tack but get fatally burned himself attempting a rescue. These things are relative. We sit quietly in the dentist's chair and submit willingly (?) to his tortures for we know only too well that, if not today, then six months from today, he will have us at his mercy. And that six months will not make the ordeal any easier. Also in the human these pleasures may be ideal. Read the tortures which the early Jesuits suffered at the hands of the Indians in *The Bloody Mohawk,* by T. W. Clarke. It does us modern pampered humans good at times to realize what men will suffer for an ideal. Yet that suffering was in answer to the pleasure principle, weird as the contradiction may seem to the average of humanity.

This pleasure principle has its basis in the instinct. If the reader dislikes the word instinct, he may think in terms of drives or impulses if he chooses.

These instincts are almost always of such a nature that they aid in survival of the species, but not necessarily of the individual. Pleasure is the reward which the animal receives for carrying out the instinct, pain is the red light, the warning not to repeat the offense in the future.

Moreover, since these instincts are basic, the foundations on which a species survives or is exterminated, it is very important that they be reinforced. Closely tied up with these various instincts we have certain emotions, such as fear, rage or love, and these emotions, with their attendant feelings of pleasure or the opposite, sensitize the brain. Thus experiences which directly arouse our instincts tend to make a greater impression on the brain plate, to be remembered better, as we say. We can look on them as suggestions.

A word as to intelligence. It was long the custom to contrast instinct and intelligence. It was thought that instinct represented the baser side of man, whereas intelligence was something on a much higher plane, the pure and noble side of man's nature. Actually intelligence is the servant of the instinct, of the pleasure principle. We use our intelligence to gratify our search for pleasure, be these pleasures low or idealistic. We may reason with a child for days, to no effect. We may tell little Johnny that he is not to play with strange dogs, and he is unimpressed. Let one of those same dogs take a nip at him and he has learned his lesson. That one experience, falling on a brain sensitized by fear, will leave a lasting impression. It is "burned in," so to speak.

Hypnotism and emotion—whether the emotion be pleasurable or unpleasurable—are the only forces which we are certain have this effect on the photographic plate of the brain. It seems possible that certain drugs and perhaps alcohol may under certain circumstances, produce the same results, but we are not certain. It is highly probable that hypnotism in its turn depends on emotion. Ferenczi, a psychoanalyst, has given a formula which may express the situation. He says, "Suggestion depends on transference and transference is a shifting of the libido."

In plainer English, his theory runs somewhat along these lines. In hypnotism the operator takes the place of the subject's parent, father or mother. The subject transfers to the hypnotist the feeling he had for this parent as a child. The attitude of the operator in question will determine whether he is to be father or mother. If the subject, as a child, was submissive to this parent, he will be a good hypnotic subject and vice versa. This attitude of the child is obviously one of emotion, so that hypnotism, according to Ferenczi, would depend on emotion. An attractive theory, which may or may not be true. The writer is inclined to favor it.

We can now perhaps see a little more clearly how the laws of hypnotism may become important in our everyday life. Many situations we face in life are social situations, involving other people. Frequently these situations involve a leader. He may be appointed, he may seize authority, or he may just gravitate to the top. The boss in the office is a typical example, the dictator on the radio not so typical but far more powerful. Now if by any device this leader can arouse our emotions, can "get under our skins," then his words, his suggestions, falling on our sensitized brains will have far more weight than those same suggestions given us by a stranger or in a magazine article where no emotion is involved. He is, to all intents and purposes, a hypnotist.

Our reactions may be antagonistic—negative suggestion—but they will be strong. If the dictator or boss in question knows his business he will take care that he does not arouse antagonism. He will appeal to the pleasure principle in some form or other. He will tell us that we are being persecuted, robbed, hemmed in. He will appeal to our patriotism, our love of home and family. He will promise us security, wealth, glory if we but do as he says. And if he knows what he is about we will fall under his spell just as surely as a good subject falls under the trance of a hypnotist.

This technique of "direct" or "prestige" suggestion we see clearly in the stage hypnotist. His success depends on a forceful, frontal attack. He never allows the subject's gaze to shift from his own and literally bullies him into the hypnotic trance. Here we have clear evidence of the emotional factor in hypnosis. The psychologist in his laboratory also uses this prestige suggestion although in a quieter form. But whether it be the stage hypnotist, the lab-

oratory psychologist or the dictator on the radio, results are the same, so far as psychology is concerned. The suggestions fall on a highly sensitized brain and such suggestions have tremendous force, a force not dependent on the value that the proposals, as such, may have.

### *Few, but Mighty*

Let us now consider a few facts which we have gathered from our study of hypnotism in the laboratory. One in every five of the human race are highly suggestible, at least half are suggestible to a very considerable degree. But here mere figures do not tell the story. That one fifth has a power far beyond its numbers, for this type of man, acting under direct suggestion, is no mere average person. He is a fanatic, with all that fanaticism may imply for good or evil.

The writer, several years ago, had a very unpleasant experience which illustrates the point. He wished to show the power of the posthypnotic suggestion so he suggested to Smith that, on awakening, he would go over and insist on sitting in Brown's chair. Smith and Brown were almost strangers to each other. When he was awakened, Smith paused a moment, then got up and walked over to Brown.

"Mind if I sit in your chair?"

"Yes. I like the chair myself."

Without a word Smith reached down, took Brown by the shoulder, and literally hurled him across the room. Then he sat down, muttering savagely that if Brown so much as opened his mouth he'd send him through the window as well. And he meant just that. A few such experiences teach the operator to "take it easy." On another occasion the writer suggested to a subject in hypnotism that an individual he disliked was standing in front of the door. Without an instant's hesitation the subject strode up to the door and drove his fist through the panel. The individual who is highly suggestible, whether from hypnotism or from strong emotion, reacts with a passionate fury which leaves us other mere mortals staring in open-eyed wonder. But it is terribly real, as the world can testify from its experiences of the last war and as de-

velopments in Russia, China and the Argentine have borne witness.

There is still another line of approach which shows us the very close relation between the suggestibility of hypnotism and that arising from the emotions. Basic to psychoanalysis, as outlined by Freud, is the so-called complex. Freud discovered that many of our early childhood experiences are forgotten in a curious sort of way. The forgetting is not passive but active; they do not just fade away into oblivion, they are literally thrown out of consciousness, they are "repressed" into the unconscious.

Such experiences are always unpleasant in nature and are forced out of consciousness in accord with the pleasure principle we have already stressed. Not only will the body not undergo pain willingly, unless for a future pleasure, but the mind also turns away from painful thoughts. The reader can easily think of what seem to be exceptions, but we would again warn that many apparent exceptions are not real. A person may brood over bad treatment, which is unpleasant, but this in turn may bring up the feeling of self-pity which is very pleasant. Or he may plan revenge, thinking out various ways in which he will even up the score. This also may be pleasant.

However, the pleasure principle does not work in nearly as clear-cut form in the mind as in the body. To a great degree we lose the power of repression after the age of five, although under stress, as in war, it may still act very effectively. But it does work in childhood and Freud discovered that many of the neuroses have their origin in these repressions. They are "down" but not "out." Why they are not out is outside our discussion here. But once they become installed in the unconscious they can cause a lot of trouble. They are, in fact, posthypnotic suggestions and act with all the compulsive power of such. The fact that a hypnotist was not involved in making the suggestions does not lessen their power.

For example, a child is badly frightened by a cat. Later in life he develops a fear, a phobia, of cats. Yet strange to say the original experience in which he was frightened has been completely forgotten. Note the close resemblance to the posthypnotic suggestion. All we need is the hypnotist, rather than the cat, to give the suggestion and the parallel would be complete.

These complexes act in very curious fashion. We can tell what causes them but we cannot predict results. A little boy was going to the store. He had to pass through a narrow alley way closed at both ends by a door. He got into the alley, the door behind him snapped shut, the door in front was closed. Then he found there was a dog in the alley, which promptly attacked him. This frightened the child very badly. In later life this incident was forgotten, repressed, but the complex did its work. Strange to say, however, he did not develop a fear of dogs, as one would have expected, but a fear of closed spaces—claustrophobia. His main idea was to get out of that closed alley. This was the autosuggestion which, given in a state of great emotion, later came out as a complex—a posthypnotic suggestion.

Another little boy was sliding down a hill. His sled collided with a fence and his hand was badly cut. The doctor could not give him an anesthetic, but had to sew up the hand while he was wide awake, a very painful and terrifying experience. This was repressed and later came out, not as a fear of doctors but a fear of black bags. The doctor had with him a black bag and the eyes of the child were riveted on this bag, for from here the doctor took the instruments which caused him so much pain.

This type of posthypnotic suggestion may come out in various ways, but the complex is, to all intents and purposes, a posthypnotic suggestion. Fright by a cat may appear in later life as a fear of cats. But it may just as easily come out in the form of a compulsion to kill cats. The writer had a friend who got himself in no end of trouble with his neighbors because of this. Or again it may appear as an obsession that a person is looking at him with cat's eyes. This may become so strong that the individual may be very dangerous, even murdering his supposed persecutor.

But note again the very close association between the Freudian complex and the posthypnotic suggestion. The complex, we know, is definitely caused by strong, unpleasant emotion. Moreover, it works along almost identical lines with the posthypnotic suggestion, not quite as specific, to be sure, but just as compulsive. Also we would find the other characteristic of the posthypnotic suggestion present if we cared to look, namely rationalization.

The reader should note that Freud, the founder of psychoanaly-

sis, studied under Bernheim and Liébeault of Nancy, France—the two men who first adequately described the posthypnotic suggestion. Freud had the genius to see the implications. His rejection of hypnotism at a later date and the reunion of hypnotism and psychoanalysis as "hypno-analysis" and "hypnotherapy" in modern times is another, but lengthy, story.

So, emotion and hypnotism seem to sensitize the brain in identical fashion. The suggestion which is given in either case leaves an indelible impression and provokes to acts which are quite apart from any intellectual processes the individual may use.

To sum up: we agree with White at Harvard that the basic nature of hypnotism is to be found in suggestion. Beautifully simple? By no means, for this suggestion depends on brain sensitization. Hypnotism sensitizes the brain and so does emotion. Hypnotism itself probably depends on emotion. What hypnotism gives, strong emotion may also give, but results here are very hard to predict or to control.

Hence comes the great importance of hypnotism as a "laboratory" in which to study this whole problem of suggestibility, for the phenomena of suggestion are tremendously important. Around this question centers the whole problem of mob psychology, the psychology of such leaders as Hitler. Without in any way straining language we can truthfully say that he was one of the great hypnotists of all time. Yet he may never have heard of the subject. We will return to this in the later chapters of the book.

CHAPTER VII

# *Medical Uses of Hypnotism*

A BOOK edited by Jerome M. Schneck was published in 1953, which contains eleven articles, each contributed by a man internationally famous in the field of hypnotherapy. The contributors are all medical doctors and in some cases psychiatrists as well. We quote the titles of these articles to give the reader some idea of the scope of hypnotism in this field: (1) History of Medical Hypnosis (2) Hypnosis in Internal Medicine (3) Hypnosis in Surgery (4) Hypnosis in Anesthesiology (5) Hypnosis in Dermatology (6) Hypnosis in Obstetrics and Gynecology (7) Hypnosis in Psychiatry (8) Hypnosis in Child Psychiatry (9) Hypnosis in Dentistry (10) Physiologic Aspects of Hypnosis (11) Induction in Hypnosis.

Hypnosis in medicine, or hypnotherapy, covers a very wide range. Most of the work in this field has been done since 1950. Every year sees the psychiatrist broadening his attack and giving us startling new techniques. Therefore, our one chapter devoted to a topic of this scope can hope only to hit the high spots.

Ten years back, we could say that, with few exceptions, the medical use of hypnotism was practically unknown in the United States. Now hypnotism has come into its own and is so progressive, so dynamic, in this field that what is presented in this chapter could easily be of only historic interest five years from today.

We will cover the subject matter of this chapter under two very broad headings, Mental Disease and Physical Disease.

We will see that there is a considerable area of overlapping between the fields, an area which we refer to as psychosomatics. We will deal with these cases when we come to them but the simpler classifications of mental and physical will suffice for a brief chapter such as this.

### *The Basic Cause of Mental Disease*

We will make a flat statement that basic to every case of mental disease is the Freudian complex, the repression. In reality, it is a posthypnotic suggestion, as we explained in the last chapter. There is no hypnotist involved, but that does not affect its basic nature.

This type of posthypnotic suggestion differs from what we see in the psychological laboratory. There, we are very careful that these suggestions do not arouse conflict or antagonism in the subject. In the Freudian complex, the repression occurred because of conflict and now acts with all the compulsive force of a posthypnotic suggestion, causing further conflict. In psychology, we discuss this under the heading of Unconscious Motivation, a concept basic to any understanding of mental disease.

Then again, in the psychological laboratory, the hypnotist is always very careful to remove these posthypnotic suggestions at the end of every séance, or, when he gives a suggestion to be carried out at some later date, he finally removes it and he eliminates any effects of such a suggestion.

The complex is imposed by life itself and is not under this kind of control. It probably dates back to before the age of five. Let us say the psychiatrist encounters a person suffering from some form of mental disease at the age of twenty-five. We have already pointed out that time is a very important factor in the treatment of mental illness. A situation can be burned in for twenty, thirty, forty years. The psychiatrist is dealing with a posthypnotic suggestion, to be sure, as he confronts this complex, but it is very different from the posthypnotic suggestion which he would produce in his clinic merely to demonstrate a point. He can guarantee to remove his laboratory posthypnotic suggestion at a minute's notice and no harm done. He can make no such guarantee in the case of the Freudian complex despite the fact that it is in actuality a special form of posthypnotic suggestion.

These two characteristics of the Freudian complex, namely, conflict and time duration, cause the personality, the "you," to do curious things. After all, you have to live, you have to face reality as we say, so you build up certain mental mechanisms to reduce the pain of the conflict and enable you to live a normal life. This

whole concept of mental mechanisms is original with Freud and worthy of his genius. Unfortunately, any discussion of this fascinating subject would require a whole chapter by itself. We dare not become involved with this topic in this particular chapter.

How do we treat mental disease? The basic concept is very simple. We are dealing with a posthypnotic suggestion of a certain type. The best way, as we well know, to rob a posthypnotic suggestion of its compulsive power is to bring it into consciousness. This puts an end to the process of unconscious motivation for the complex, and the posthypnotic suggestion is now a part of our normal conscious life. Isn't this all very simple?

Say that to any psychiatrist and be prepared for profanity. The concept may be simple, but the techniques employed may be very complex and results may be exasperatingly difficult to obtain.

Remember that the complex in question is based on a very unpleasant experience which was thrown out of consciousness into the unconscious some ten, twenty or thirty years back. The conscious mind not only refuses to remember this original experience but has built up a whole set of "defense mechanisms" to make sure that it stays where he wants it, namely, in the unconscious mind, while the patient pursues as normal a life as is possible and blissfully ignores the complex in question. These "defense mechanisms" when reinforced by time become so very strong that they repel every attempt to get at them. Any psychiatrist is aware of this. So his task is far from being simple.

Where does hypnotism fit into this general picture? First, it is of great importance as an uncovering technique. In hypnotism, we can use what we call regression. Do not confuse this with repression. In regression, an individual, say, of the age of twenty-five can literally go back and relive his life in his memories at the age of five, of ten or fifteen. The technique is complex, involved and can be used only by an expert, but in his hands we can obtain such results.

For example, a man at the age of twenty-six is asked to give the valedictorian address which he gave to his class on graduation from grade eight. This request was made in the conscious state. He not only could not give the address but could not even give its title. In hypnotism, he not only recalled the title but gave the ad-

dress word for word. Such cases could be multiplied indefinitely.

So in hypnotism we stand a very good chance of uncovering the original experience which led to the complex, to the posthypnotic suggestion responsible for the mental symptoms. It is well to note that we do not need the deepest stage of hypnotism, namely, somnambulism, to get these results. Probably fifty per cent of all people can be hypnotized to a depth where such recall is possible.

Now what? Let us suppose that we have been successful in uncovering the original experience or group of experiences for which we are seeking. This is only the first part of the battle in a great many cases, in fact in the majority of cases. The individual through his "defense mechanisms" has built up an entire life pattern in the past ten, twenty or thirty years, a pattern in which this complex in question has played a very vital part. We are not going to remake that pattern in ten, twenty or thirty minutes.

Harold Rosen of Johns Hopkins points out that, at this stage, we are not treating *by* hypnotism but *under* hypnotism. Let us draw an analogy. You are being operated on for cancer. The matter of making the original incisions, of discovering and uncovering the cancer, may be a relatively simple proposition, a procedure which any good general practitioner could probably accomplish. But the matter of removing that cancer, of telling what glands and areas outside the central area are also involved and should also be removed, will probably require the services of a cancer specialist. Furthermore, even with his services, the operation may not be successful.

We should here add a note of caution. The removal of just plain symptoms in mental disorder is somewhat the same as mowing down a crop of weeds and leaving the matter at that. The roots are still intact and other symptoms will develop. For example, it may be, sometimes is, relatively easy to cure alcoholism by means of hypnotic suggestion. However, it is generally conceded that alcoholism is a symptom of mental disorder. You have not touched the real cause, the roots of that disorder, simply by removing alcohol, and the alcoholism may be replaced by another symptom, say drug addiction, which is worse than the first. Rosen makes the point that you should never remove the symptoms unless you are sure of the cause.

Yet we do have in the literature many examples of what appear to be permanent cures of mental conditions by means of direct suggestion, in other words, symptom removal. Schultz in Germany points out that the objections to symptom removal in hypnotherapy may not always be justified. Needless to say, your competent American psychiatrist is perfectly aware of this, and will suit his attack to the particular case under consideration. If it calls for a direct attack on the symptoms themselves, he will do so. But the majority of the cases which find their way into his office or into his sanitarium will call for a much more complex attack.

This attack, once the uncovering technique has been successful in hypnotism, illustrates the wedlock between hypnotism and psychoanalysis. Frowned on by Freud, despite his genius, the technique employed is essentially that of psychoanalysis, of depth psychology, as the psychiatrist tries to outflank, outtrick, outmaneuver the "defense mechanisms" and begin that systematic reeducation of the personality which in most cases is essential to a cure. These techniques and their application to particular cases we cannot describe in this very brief chapter.

### *Insanity*

Here we include those cases which are or should be "hospitalized" in one of our many institutions for mental disorders. The disorder involves the entire personality, the individual is insane twenty-four hours of the day, and, in general but not always, he lives in a dream world of his own, totally removed from reality, not oriented in time or in space.

My psychiatric friends would object to this word "insanity" and would have some justification. They would complain that we are talking of the so-called psychosis, and since we are talking of the psychosis, we should use the proper term. We still use the word insanity here because it conveys the picture we wish to convey and does not involve us in a mass of detail which does not belong in this book.

For example, on this matter of the psychoses, the hospitalized mental diseases, the psychiatrist will wish to be very specific, a stand which is perfectly understandable. He will apply different

techniques of treatment to every case. He must know whether he is dealing with schizophrenia, manic-depressive insanity or paranoia, involution melancholia, senile dementia or Huntington's chorea. He must also know whether the disease is structural or functional. Such points are essential when he undertakes the treatment of the case.

But we are concerned here only with the treatment of these cases by means of hypnotism, only one attack in several which the psychiatrist may use. Here the approach for all the psychoses is relatively simple at the present moment. That picture may change completely in the next five years, for the psychiatrist is no longer impressed with that word "impossible." The impossible merely takes a little longer and already cases which would have been given up as hopeless five years back are yielding to hypnotherapy. We can speak only for the present moment and respectfully salute that research genius which may make our statements totally inapplicable in the next few years.

Let us take an example or two from the field of the functional psychoses which will, we hope, illustrate our point. The examples are on the spectacular side, drawn from the mental disease known as paranoia. But, broadly speaking, they illustrate the possible use of hypnotism in the entire field of the functional psychoses.

The sanity of "insanity"! Strange as it may seem, the man or woman whom we class as insane is, in one respect, far more sane than we. The great quest of man is happiness—the pursuit of the pleasure principle. As a group the insane are the happiest of all people. There are exceptions, especially among the "organic" or "structural" insanities or psychoses—where the brain is actually damaged by syphilis, brain tumor or bursting blood vessels. But the "functional" insane, those in whom the brain is in no way diseased, seem to have realized the impact of the words, "The kingdom of God is within you." These people have learned that they can retreat into a life of daydreams, cut off all contact with reality, and be happy ever afterward. Napoleon in the asylum *is* Napoleon. The French Government would not approve, but he will present you with the province of Normandy as a gift, if he happens to like the cut of your nose. Further, he absolutely believes that he can do so. He has to explain why he, Napoleon, is in the asylum, but

that is easy. He is a great man persecuted by his enemies. Soon he will be free and then—ah then—just watch what he does to the President of France for his low tricks.

We can understand Napoleon fairly well if we understand the psychology of suggestion. He is fairly typical of these functional psychoses, the most numerous of all the insane. Some will be more degenerated than he as regards intelligence, some others will substitute bodily actions for his grandiose ideas but, by and large, the picture is the same. He is an individual who has retreated from reality in following the pleasure principle. And this we can best explain by the laws of suggestion.

Let us take an example. Little Johnny, as a boy, is much like other boys but not quite as husky. He does not like the rough and tumble of his street, with its accompaniment of black eyes and bloody noses. So he tends to withdraw from the group and live with his books and pictures. But he still craves power and recognition, as do all of us. Then he makes a splendid discovery. If he just imagines hard enough, he can have a lot of fun from building castles in the air. In his own mind he becomes a great inventor and likes to picture himself as a new edition of Edison or Steinmetz. He overlooks the fact that such geniuses climbed the ladder by facing, not retreating from, reality. The blistered hands and long hours of hard mental work which were their preparation he neglects completely. He retreats more and more into his life of daydreams until this becomes the only real life so far as he is concerned.

Then, as a young man, he snaps the last bond. He discovers that in the moon is a great dynamo of energy which is subject to his will. He can direct it in any way he wishes, either to destroy this world or convert it into a modern Utopia. He explains his ideas to his friends, may write the President of the United States about it, even threaten him with destruction if he does not "play ball." Most do not go to this extreme but whether they do or not their friends realize there is something wrong, get in touch with the authorities, and the great inventor arrives at the asylum, probably for the duration of his natural life.

Let us see exactly how suggestion, of which hypnotism is only an exaggerated form, explains such a case. Emotion sensitizes the

brain and these daydreams are very pleasant. Every time he dwells upon them the photo plate—to use our analogy—of the mind is highly receptive. They become "burned in," as it were. Moreover, since they are pleasant, he is following the pleasure principle when he daydreams on every possible occasion. The whole thing slowly becomes a closed and vicious circle. His thoughts become more and more centered around these ideas, until they cannot escape from that orbit even if they would. At this point he loses all contact with reality and we say he is insane.

We get this picture very clearly when we talk to these people in the asylum. Their minds are far, far away. They are "absent-minded" to the most extreme degree. Now and then we can establish contact and for a minute or two they seem perfectly sane. Then again they are off on their delusions, describing to us how their insides are of solid gold. Finally they give up even talking to us and retreat again into their very pleasant thoughts.

Hypnotism—or suggestion—can explain such cases but cannot effect a cure. Suggestion has already done its work. They have arrived at their goal of happiness and actively resist any attempt at cure. After all, this is quite reasonable. They have spent ten, twenty, thirty years building up this beautiful dream palace and along comes a silly doctor who wants to tear it down overnight. Their answer is an emphatic "no." So in many cases we can explain accurately why a patient is insane, and that this insanity may be due to suggestion, but nevertheless we are quite helpless in effecting a cure by hypnotism.

In cases such as those quoted above, the patient is suggestible in the wrong direction. He is "negatively" suggestible. For example, we may take one of these cases of dementia praecox or schizophrenia, as it is called, stand him up in front of us and say, "Sit down." He remains standing.

Then we say, "Very well, stand where you are." He promptly sits.

We say, "That's fine. Now just sit there while I take your blood pressure." He immediately stands up.

He has arrived at his goal of happiness. He senses that the doctor in question wishes to tear down his dream palace, so in defense he does exactly the opposite of any request. From his point of view

this makes good sense, but it certainly does not help toward a cure. Most of the insane are so unco-operative that it is quite impossible to induce hypnosis even to a slight degree.

So, in this broad field of the functional psychoses, hypnotism has very little application at the present moment. This may be because the Freudian complex involved, the posthypnotic situation, if we may use that term, has been built up slowly over a considerable period of time. Even with hypnoanalysis we cannot spot one particular experience on which to concentrate our attack. It is like having to operate for generalized cancer of the abdomen as opposed to a specific localized cancer on the stomach wall, which is much simpler surgery. Give the psychiatrist a specific, dated complex on which to work and his chances of success are much better than if he has to use a shotgun attack.

This does not mean, however, that such cases are hopeless. Our psychiatrists are making remarkable progress in this field. As was mentioned earlier, in 1955, for the first time in history, the population in our mental institutions showed a decline.

Why? There are various reasons. Back around 1935, Sakel in Vienna introduced shock therapy in the field of the psychoses. He used insulin to produce insulin shock. This definitely increased the rate of remission—it is wise not to speak of cure—in mental disease. A few years later, another investigator began using metrazol for the production of shocks and later still electroshock came into very wide use. All three methods of shock treatment are still used in varying degrees and in specific cases.

Then, another technique was introduced, psychosurgery or lobotomy. This was found extremely useful in certain of the psychoses.

Finally and perhaps most important, we now have a number of the so-called wonder drugs, or tranquilizing drugs. Thorazine is one such and there are literally a dozen others. The use of these drugs has decreased the necessity for shock therapy by about fifty per cent and appears to have definitely increased the remission rate, the "cure" rate if you will. This new drug attack is too recent for us to give any definite statement as to its effectiveness, but the outlook is very promising.

*The Neuroses*

It is general practice to divide mental disorders into two broad groups, the psychoses and the neuroses. There are objections to any system of classification but we will accept this one. The neuroses represent the milder type of mental disorder. And it is in this field that hypnotherapy has assumed importance.

Neuroses do not involve the entire personality at all times. You may have a handwashing mania, a phobia about cats or a case of hysteria and your best friends may not be any the wiser. You may be able to conceal these symptoms very effectively when you are in public. Furthermore, you may be a very competent individual in the business world, in the professions or wherever your life-work happens to fall. This picture is totally different from that presented by the psychotic, the individual suffering from a psychosis.

A neurotic person is not disoriented as to time, place and people. He knows where he is, what time it is and has no trouble recognizing friends and acquaintances. This may not apply to the psychotic.

Also, a neurotic's troubles do not have a structural basis. That is to say, there is no injury to the central nervous system. In many cases of psychosis, such as syphilis of the brain, brain tumor, senile dementia, there is very definite damage to the central nervous system. Such a condition is so rare with the neurotic that we may overlook it completely.

The neurosis is generally caused by one specific experience, one specific complex or posthypnotic suggestion resulting from that experience. There are exceptions to this rule, but it holds in the great majority of cases. This makes the neurosis much more easy to attack with that combination of hypnotism and psychoanalysis which we term hypnotherapy.

The neurotic as a general rule need not be hospitalized or placed in an institution. There are, of course, exceptions. Freud definitely limited his system of therapy, psychoanalysis, to the neurotic, and hypnotherapy has largely concerned itself with this type of mental disorder in so far as the field of mental disease is concerned. Consequently, while we have more or less dismissed the psychoses with a wave of the hand, so to speak, as far as hypnotism is con-

cerned, the neuroses will tolerate no such treatment in a book about hypnotism.

The modern psychiatrist, when using hypnotherapy, will probably follow a standard pattern which applies to most of the neuroses. He will probably avoid a direct frontal attack aimed at removal of the symptoms. He will use hypnotism largely to uncover the symptoms as he probes in the unconscious mind. After he has uncovered the cause—and he hopes that this cause will be specific, consisting of some one experience which the patient has repressed—he will then resort to psychoanalytic techniques aimed at reintegrating this experience into the normal conscious life of the individual, striving to give the patient insight into his condition and enable him to face reality.

### *Hysteria*

We explain the hysterical individual by saying that he or she is a grown-up five-year-old. We can explain it again on the basis of the pleasure principle, the pleasures of a child. The hysteric has an intense longing for attention, for sympathy. He does not realize that the proper way to get this attention is by hard work and real accomplishment. As a child he learned that he can become the center of attention if he lies on the floor, kicks and screams. This works so well that as an adult he does the same, and we say he has an attack of convulsions.

There are all kinds of hysterical symptoms besides convulsions, such as attacks of weeping, paralysis of an arm or a leg, even hysterical blindness or deafness. These can all be explained on the basis of autosuggestion. The patient finds it very pleasant to be the center of attention. This sensitizes the brain, so each time he repeats the hysterical "attack" that line of conduct becomes more deeply burned into the brain plate. He repeats as often as possible because of the pleasure involved, so we again have that vicious circle.

But the hysteric lives in a real world. He does not retreat from reality, but, rather he manipulates reality. He still lives with his family but he uses all his tricks to make its members his slaves. He learns that the best device with which to center attention on himself is to be sick, hence the endless list of pains, convulsions,

indigestion, "heart" attacks, and so forth, with which the hysteric dominates his world.

Now, strange to say, this type of person is usually easily hypnotized, so much so that William Brown claims hypnotism to be a symptom of hysteria. We have already noted our disagreement with this point of view. But here again, while the patient is easily hypnotized, and while hysteria is caused by suggestion, it is very difficult to effect a cure by the same means, and for the same reason as in insanity proper. The patient has spent all his life pursuing the pleasure principle toward the goal of hysteria. He is an hysteric by choice, not by compulsion. The choice may be one of the unconscious mind, and the patient may deny indignantly that he wishes to be sick, but psychology now realizes that the unconscious mind is quite as important as the conscious, at least in this matter of mental health.

So the hysteric actively resists cure but at the same time wants to be cured, strange as that may seem. Consciously he insists that he will co-operate in any line of treatment but he is delighted to find it doesn't work. He, of all people, enjoys being sick. He uses his symptoms for three purposes: to get attention, as a retreat from reality and as a means to dominate his environment.

Yet he is very suggestible and hypnotism in many cases can produce a cure, more or less by the "strong arm" method. We have already pointed out the tremendously compulsive power of the posthypnotic suggestion. If now, in hypnotism, we point out to the patient the pleasure he will get from being well and healthy, the pleasure it will give his family, and above all things, the added esteem he will have from all his friends, we may be able by the sheer force of suggestion to swing the pleasure principle into new channels.

But these cases are notoriously unstable. Grown-up five-year-olds, they use their pains and aches to get the sympathy and attention they crave. If this attention is not forthcoming under the new line of treatment they are likely to "backslide." They have never faced reality on the adult level, which is a rather difficult task even for well-adjusted people in these years. With the slightest discouragement or reverse they are right back where they started from. Yet in some cases hypnotism, carefully used, works wonders.

The reader is referred to Bernheim's book, *Suggestive Therapeutics*, for a very careful discussion of many hysterical cases.

Psychoanalysis has noted this weakness in the hysteric and has pointed out that hypnotism is not always successful. There is a tendency for the hysterical symptom, when cured, to return in another form, because of the basic weakness in the patient, his search for attention and sympathy on the five-year-old level. The psychoanalyst explains hysteria by the complex, which we have already mentioned. In his opinion the only way to cure hysteria is to search out this complex and bring it back to consciousness—the process of reintegration. The patient will then realize just what is causing the trouble and will cure himself.

But the psychologist is always suspicious of the psychoanalyst who blasts against hypnotism. For: "The lady doth protest too much, methinks." More than one article has been written pointing out the extent to which the psychoanalyst uses suggestion, generally without the slightest intention of so doing. It is the old problem of "operator-attitude." The psychoanalyst tends to react to these charges with much too vehement denials. Instead of admitting the uses of suggestion he tends rather to adopt the other extreme of complete denial, at least in so far as his own technique is concerned.

The truth probably lies somewhere between the assertions of both camps. The hysteric is notoriously difficult to handle, because of that tendency to backslide or to regress, in psychoanalytic language. Hypnotism has certainly effected some striking cures, unless Bernheim and his followers were completely mistaken, and that is hardly possible. On the other hand psychoanalysis has also had some very startling successes. It would seem that we can, at present, only say that both are useful. To condemn wholeheartedly one or the other is to fly in the face of our evidence. A cure by either method would seem to depend on the patient himself, his co-operation, the duration of the trouble and the strength of his whole personality in the matter of facing reality.

### *The Anxiety Neurosis*

This is also sometimes referred to as the anxiety state. The reader is asked to note that there is considerable overlapping in these

various types of neuroses. Fifty years back, we thought we had a system of pigeonholing which allowed us to classify all these conditions as definite disease entities. We now realize that the filing system was inadequate and deceptive. The symptoms of one neurosis merge into the symptoms of another in most annoying fashion. We can probably keep the psychosis and the neurosis pretty much in their respective pigeonholes, but even here some very able psychiatrists would wish to qualify that statement.

The anxiety state is characterized by just plain anxiety, or fear if you wish, with the bodily accompaniments of fear, such as rapid heart beat, rapid breathing, perspiring, trembling, sleeplessness, nausea. When these mental states make themselves evident in bodily symptoms, even going as far as vomiting and convulsions, we refer to these symptoms as conversion symptoms, the mental state having been converted into a bodily state. This has nothing to do with religious conversion, needless to say.

In anxiety states, the psychiatrist is fortunate in that he will have the patient on his side, so to speak, which may be in direct contrast to hysteria. The patient does not enjoy these symptoms. In many cases, he is figuratively going through hell, so we are assured of co-operation.

Furthermore, the complex, the posthypnotic suggestion we are seeking, is generally quite specific, generally centered in one experience or a closely related series of experiences. All this helps. On the other hand, the "defense mechanisms" of the individual in question are firmly determined that this original experience will not be restored to consciousness, so the battle is on. You have only to read through some of the case histories by M. H. Erickson, or a dozen other men equally capable, to realize that the brilliant detective in the best who-done-it is really a second-rate intellect compared with a good modern psychiatrist.

### *The War Neuroses*

The war neuroses are not unique or unlike the ordinary neuroses of civilian life. They do, however, give us very important sidelights on these civilian neuroses and they occur, of course, with much greater frequency, percentage-wise. During the Second World War, over thirty per cent of all discharges were on the basis

of mental maladjustment. Many of these men still carry with them the mental scars of their war experience. The writer classifies these war neuroses under three headings; his classification is unorthodox but he hopes it is illustrative.

First, there are those that occur in a certain type of individual, one who has been overprotected in his home life. His personality is too immature to stand the strains of military life. If we take this individual away from his home and family and drop him into a military camp where he is just a number and where the sergeant is not going to tuck him in bed nights, we may have a mental breakdown on our hands. If not immediately then at some later period involving hardships or the danger of actual combat, he may simply go to pieces. The writer saw many such cases in the First World War, men who became violently sick at their stomachs, who were unable to sleep and had terrific nightmares, who trembled so violently that they simply could not walk, when they realized that their unit was going into actual combat. These men had to be sent back to hospital.

Such cases are probably best classified under the broad heading of hysteria. The individual is using his symptoms as "defense mechanisms," as devices to protect him from physical danger. Such cases are notoriously difficult to treat in the sense of turning them into good soldiers. They simply have not grown up and cannot face reality. But these cases represent about three quarters of the so-called war neuroses and therefore present a major problem to the military.

Secondly, we have the neurosis which is the result of one special experience, of one trauma, as we say. Consider the following case.

In a heavy bombardment an artillery man is at his gun, elevating it furiously by means of a hand crank. An enemy shell scores a direct hit on the gun, kills his five comrades outright and, miraculously, for shells work that way, leaves him uninjured. He turns and runs for half a mile, then collapses. In hospital, he has only one noticeable symptom. His right arm is still rotating as it was when the gun was hit and it is impossible for him to stop it. His mind is a total blank between the period when the shell hit and the time he recovered consciousness in hospital. You see the very close similarity to the posthypnotic suggestion. Of course, there was no

hypnotist involved but his attention was centered on that arm movement at the time of intense fear. No hypnotist could have done better.

Now the psychiatrist steps in and the battle is on. His basic idea is to restore this lost memory to the consciousness of the individual, thereby negating the power of the complex, of the posthypnotic suggestion. This he is determined to do and the patient is equally determined that he shall do no such thing. That horrible experience was thrown out of consciousness, was repressed. It was just too terrible to live with. So the psychiatrist hypnotizes him and the patient recalls the experience but he refuses to remember it on awakening. The psychiatrist tries again, and insists. The patient refuses to awaken. Next, when he again has the patient in the waking state, he describes exactly what happened to him and the patient refuses to believe it. It may have happened to somebody else but not to him.

Then the psychiatrist knows that he has a real job on his hands, rolls up his sleeves and goes to work with every trick at his disposal, including dream analysis, narcoanalysis, automatic writing, anything to break through what he calls the resistance of the patient. If the reader wishes a really fascinating story dealing with just this type of case and written by a man who is an authority on the subject, we refer him to the book by J. G. Watkins, *The Hypnotherapy of War Neuroses.* While the stories of success are impressive, some of the stories of failure are equally impressive, as Watkins admits. In cases of failure, the patient is hospitalized and will probably spend the rest of his life in an institution—an example which is an exception to the rule that generally only a psychosis requires hospitalization. Such cases are not too common.

A case such as the one we have just described would fall more under the heading of anxiety neurosis rather than hysteria, but as we said before, the two groups tend to merge into one another in a very confusing fashion. Yet the outlook in most of these cases is reasonably hopeful. The patient has already demonstrated by his past service, as shown by his courageous operation of his cannon under bombardment, that he has a mature personality, a well-integrated ego. Moreover, he probably wants to get well. But if he does get well, he may be returned to active service, so we have a

conflict on this point. But, if the psychiatrist is dealing with one well-defined complex, rather than with a general reaction against military or battle experience, his chances of success are reasonably good. Everything will depend upon the personality of the patient and the skill of the psychiatrist.

Let us now look at the third group of war neuroses, so-called battle fatigue, sometimes referred to as the Old Sergeant's syndrome. This pretty much describes the condition. We now know that in modern warfare any man may reach his breaking point, no matter how tough that particular individual seems to be. There are limits beyond which no human being can go.

This group of neuroses affects the tough, experienced soldier, the old sergeant with years of service behind him and a record of endurance which has probably earned for him more than one medal. Then suddenly he breaks, perhaps for no apparent reason. He has literally reached the breaking point and that is about all we can say. Constant exposure to danger, lack of sleep, continuous loud noises, the indescribable horrors of modern warfare, and he arrives in hospital with something resembling an acute anxiety neurosis.

Here we have one of those rare examples of a neurosis which might be caused by injury to the central nervous system. Though the injury is temporary and attributable to sheer fatigue as much as anything else, still we could make out a pretty good case for the condition's having a physiological basis.

Prognosis is such cases is good. The individual has already shown that he is a very competent soldier. Given a month's rest, he will probably be just as good a soldier as he ever was, and will be thoroughly mad at himself for having shown such weakness. This will be the general picture, but there are, of course, exceptions. We could tell some fascinating stories from this group, and of all cases of war neuroses, but space does not permit.

### *Phobias, Compulsions, Obsessions*

These cases present a curious picture. For example, let us consider the hand-washing compulsion, previously mentioned. Here the patient must wash his hands forty times a day. This condition can become terribly exasperating. One patient fought against the

compulsion furiously and finally solved the problem in drastic fashion. He put one hand on a block and hewed it off with an ax. The other he thrust under a rotary saw. That ended the compulsion—and the sufferer.

In these psychoneuroses it would seem that the symptoms are no longer directed by the pleasure principle. The patient does not enjoy washing his hands, neither does he enjoy his fear of cats or his obsession that everyone is looking at him. Quite the contrary, for he does everything he can to resist, but to no avail. With kleptomania, the morbid compulsion to steal, for example, the patient is forced to steal even if a policeman is at his shoulder. Yet, strange to say, the theft is often of worthless articles which the individual could easily afford to buy. The book by Healy, *Mental Conflicts and Misconduct*, gives a very good picture of the state.

Here, it seems to the writer, we have another condition caused by suggestion. The patient, as a child, is badly frightened by, let us say, a cat. This experience falling on the brain sensitized by fear later turns up as a posthypnotic suggestion, the phobia of cats. Yet, strange to say, while we know the cause it is very difficult to apply the cure. The reason seems to be largely the time element. The picture is so deeply burned into the brain plate with the passing of the years that no amount of countersuggestion in hypnotism can erase it. Healy gives us a very useful rule of thumb. If we can treat such a patient before the age of twelve, we will probably have success, but if we begin such treatment after that age we will likely fail.

That rule, of course, is by no means hard and fast, but it does emphasize a very important fact about all mental disease. Time is a very important factor. Unless the compulsion, phobia, tendency to hysteria or to dementia praecox is checked very early, it tends to take on the nature of a habit. This does not make a cure impossible but it does make one much more difficult. We see this very well illustrated in one type of treatment used for dementia praecox, namely insulin shock. Here we have very good success if the patient is taken early. If treatment is given within the first two years the rate of cure—remission is a better word—is about eighty per cent. Then it drops off sharply and it would appear that insulin

is not of much use with older sufferers. There are the usual exceptions but such seems to be the rule.

### *Further Medical Uses Of Hypnotism*

A recent article by Martin Zwicker (1954) describes the use of hypnotism in a case of goiter "before, during and after" the operation. Such a case, it seems to the writer, illustrates a new and very important application of hypnotism. Many people go into a hospital or into the doctor's office, for that matter, in a highly disturbed condition. They leave the doctor's office or the operating room in the hospital in an even more disturbed condition. Mentally or physically, sometimes both, they have had a pretty rough session. These preoperative and postoperative, or preconsultive and postconsultive periods offer a golden opportunity for the psychiatrist practicing hypnotherapy. Strange to say, he does not appear to have done very much about it up to the present, but the whole field of hypnotherapy is comparatively new. We mentioned before that the great majority of contributions in this field have been made since 1950. The psychiatrist here has been too busy dealing with his immediate problems. The psychiatrist and the surgeon, the psychiatrist and the general practitioner, have more or less fought shy of each other, by mutual consent. Hypnotism is rapidly coming into its own, but it still seems a strange kind of attack to many men in the other two groups. They have their own ways of handling these pre and post periods, and those methods, they claim, are reasonably successful. Time alone will convince them, in fact has already convinced some of them, of the truth of the old saying, "when you stop being better, you stop being good." We can safely make this statement, that in many cases hypnotism is far more effective in calming down "nerves" or in relieving postoperative discomfort than any combination of drugs and sedatives. Unfortunately, it is also far more difficult to handle and more time-consuming than the use of a hypodermic syringe. But things are due to happen in this field.

### *Dentistry*

As a matter of fact, something has already happened in dentistry. The general public very naturally has been interested in the

use of hypnotism in dentistry to replace cocaine or gas, in other words as an anesthetic. This is to be expected and is all to the good. But authorities in this field are becoming more and more interested in the "before" and "after" periods. If what happens in these two periods can be controlled, you need not worry too much about what happens when you sit down in the dentist's chair.

Most people really like dentists—socially. Professionally, they are something that must be endured. When the dentist tells his patient that he will extract an impacted molar one week from today, this means that the patient has seven very unhappy days ahead of him. The writer can testify that this state of affairs is totally unnecessary with many people and that the actual visit to the dentist need not be more than an irritating and time-consuming chore in the middle of a busy afternoon. J. H. Weinstein writes very well on this whole subject of hypnotism and dentistry.

### *Childbirth*

Childbirth, in fact the whole field of obstetrics and gynecology, gives us another example of the psychiatrist's interest in these "before, during and after" periods. W. S. Kroger in Chicago and M. Abrahamson in Minneapolis are two authorities who, among others, are well known for work in this field. Their interest does not center wholly around the matter of painless childbirth, important as this may be. Hypnotism is used, we might almost say, as a wonder drug to get the proper mental state and relaxation in the expectant mother and the proper adjustment after the child is born. We should note that very interesting work on the control of hemorrhage, of bleeding, both here and in dentistry is being reported. A new technique always brings new problems; Abrahamson notes that nurses must be specially trained to deal with these patients.

We mentioned before that pain is nature's danger signal. We should not remove pain unless we know the cause of that pain. Such an action might have results similar to that of the country boy who went to his hotel room, blew out the gas and went to bed.

Yet there are broad areas to which this statement does not apply. You will recall that Bernheim and Liébeault had their historic quarrel because Liébeault cured a case of sciatica by means of hypnotism. There are many areas, such as rheumatism, cancer,

migraine headaches, where we admit we do not know the cause of the pain or if we do know the cause, we can do nothing about it. In such cases, hypnotism may easily be a godsend. In the case of rheumatism in its various aspects, it can produce what appear to be cures. At any rate, robbed of the terrific pain which accompanies the condition, the patient seems to be cured and that is all we can ask. In cases like inoperable cancer, we can at least have the patient face the end in physical comfort and mental calm. Rosen of Johns Hopkins writes very well on this subject.

### *The Skin*

Dermatology is that branch of medicine which deals with diseases of the skin. Of what use can hypnotism be in handling warts or eczema? According to M. McDowell of Los Angeles, hypnotism can be of very great help in handling many skin conditions. M. V. Kline, of Long Island University, reported, in 1955, on a case of psoriasis, a very troublesome skin condition. This case had proved itself resistant to all forms of treatment over a period of twenty years, yet it cleared up beautifully under treatment by hypnotherapy. Truth can be stranger than fiction, but the reader must train himself to recognize the names of those people who can speak with authority in the field. There is a certain amount of fraud and charlatanism running loose. However, with men like Kline, or in fact anyone associated with that dynamo of thought and energy, Long Island University, it is well to give what they say serious thought.

The writer recalls an incident when he handed a military man an article by M. H. Erickson of Phoenix, Arizona. He read it through carefully. "Say," he queried, then, "how crazy can this fellow get?" "Give him time, he's still a young man."

But when a psychiatrist of this caliber produces articles in his field, even if some of those articles border on the unbelievable, it is well for the psychologist to sit and listen.

### *Alcoholism and Drug Addiction*

Here we can use the posthypnotic suggestion with devastating and at times humorous effect. It is an endurance game and should the patient be a good hypnotic subject the operator holds all the

aces. The attack is based on that curious control which hypnotism gives us over the autonomic nervous system and through it the organs of the body. We suggest that the subject in future will be deathly sick to his stomach every time he touches alcohol, that the taste will be bad and that he will vomit. We may have to return to the attack several times but with a good subject we will probably succeed. Once we get this posthypnotic suggestion working it is only a matter of time. No human being will get much pleasure from liquor if the very smell of it makes him vomit. He cannot even keep it on his stomach long enough to register a "jag."

The reader will please note, however, that the problem is not quite that simple. Alcoholism is not a disease, it is a symptom of a diseased personality, of one which cannot face reality and chooses the relaxation supplied by liquor as a way out, a retreat. So we must strengthen the personality or having ejected one devil we may find seven others in its place. The others in this case may be drugs and the last state will be much worse than the first.

So we do everything in our power to make the individual face reality, and also to supply an "out" which meets with social approval. This substitute retreat may take one of many forms, depending on the nature of the case. Religion is excellent. We have to discover, if possible, some natural liking which can be used. Then we try to make the patient just as much an addict to, say, chess, as he was to alcohol. All sorts of hobbies can be used to take the place of alcohol, but always we must bear in mind that the individual really must have some retreat and this retreat must be one which will not cause trouble. One patient became such a chess fan that he would wake up at 2 A.M. and spend the rest of the night doing problems—not a very desirable situation perhaps, but certainly better than reaching for a bottle.

We must never take the cure of the alcoholic for granted. Always in the back of his mind will be the longing for some substitute which may take the place of liquor. The great danger is drugs and any move in this direction is very certainly one from the frying pan into the fire. Hypnotism supplies us with a very effective weapon against alcoholism and at the same time illustrates the psychoanalyst's criticism of hypnotism. The doctor cures the "symptom" and calls it a day, overlooking the fact that alcoholism

is merely a symptom, a sign of much more serious trouble. Block the outlet here and we may very easily have a much worse "symptom" with which to deal.

Hypnotism seems to lend itself also to the treatment of excessive smoking and by much the same technique as that advocated for its use to combat alcohol. Here, of course, the condition is by no means as serious and the treatment appears to be much easier.

But, strange as it may seem, hypnotism was considered of very little use in the treatment of drugs such as morphine, cocaine or hashish. The public tends to think of the action and nature of these drugs as similar to alcohol, but in reality they are totally different. Alcohol is not a "habit former," in and of itself. It simply provides an escape from the care and worries of this life, little more. If we can substitute another escape the individual will accept this, and in the long run will find it quite as satisfactory as was alcohol.

Morphine, as an example of the other group, acts in quite different fashion, though the individual generally starts "dope" as an escape. The feeling of peace and relaxation which comes from morphine compares very favorably with that obtained from alcohol. But once the individual has obtained the morphine habit, is an "addict," then morphine and only morphine or some other derivative of opium will satisfy the craving. And this craving is a craving of the *body itself*, is physiological, as we say. The body demands and literally must have the drug in question.

This is well seen in the so-called tolerance which the body builds for the drug, something quite foreign to alcohol. For example, if we should give the average person, by hypodermic syringe, one half grain of morphine, results might be serious. One grain would probably cause death. But if that same person became an addict, then in a year's time he could safely take fifty grains a day. One hundred grains is quite common with addicts and even daily doses of two hundred and fifty grains by no means unknown!

Now suppose we wish to "cure" the individual in question. We put him in a sanitarium and take away the drug completely. We at once have a very sick man on our hands. The "withdrawal" symptoms may be so severe as to cause death. As a result the withdrawal of the drug has to be under very careful medical supervision. Even after the subject is "off" the drug the danger of a

return is very great. There is always that constant craving for morphine which can only be met by one particular brand of drugs, the opium group.

This picture is quite different from that given by alcohol or tobacco. The body builds little if any tolerance and there are no withdrawal symptoms. We can take an alcoholic and cut off all his liquor tomorrow. We will have a very unhappy individual on our hands but he is not physically sick; certainly there is no danger of death. But with these other drugs the craving for the specific "dope" is quite different.

We know definitely that three drug groups act in this fashion. Opium and all its derivatives such as morphine, codeine, heroin, are perhaps the best known. Cocaine and its relatives are equally dangerous. Marijuana—the American version of hashish—is only lately becoming known in other countries. Hypnotism alone can do very little against these. It can strengthen the will power, the determination to resist, but the subject will go through hell to get the drug in question. We can suggest vomiting and will get it but it means nothing. The counterdrive is far too strong to be counteracted by the fear of a sick stomach. Yet with modern methods in hypnotherapy, as mentioned previously in this book, we have claims of sixty to eighty per cent cures in drug addiction.

### *Bad Habits*

It would seem that there would be a fertile field for hypnotism in curing the habits formed in childhood which weaken character. Bad sex practices naturally occur to us in this respect but there are many others. The tendency to truancy, to bad temper, to stealing, even to actual crime. We must bear in mind here that the child is far more suggestible than is the adult. Bernheim found that about four fifths of children after the age of seven could be thrown into somnambulism. Recent work such as that by Reymert and Kohn would seem to uphold this claim. So we may safely say that the child in general is a much better subject than is the adult. G. J. Ambrose, of England, in recent articles deals with this matter of hypnotherapy in child psychiatry.

We must remember that time is a factor in the establishment of all these "bad habits." Healy gives us a rule of thumb with refer-

ence to kleptomania, the compulsion to steal. If we attack the problem before the age of twelve, we will probably succeed, but if after this age we are probably faced with failure.

We might consider here the problem of the pervert, the individual whose sex life takes some outlet generally disapproved by society. This outlet is often toward the same sex, giving us the typical homosexual.

Here we run into exactly the same problem as in the case of the hysteric. The sex life is on a very immature level and the individual follows his line of action because of the pleasure principle. The pervert, in general, does not want to be cured. He is quite happy as he is, so we may count on very little co-operation, just as with the hysteric. Lip service, to be sure. Plenty of assurance that he or she will do everything possible to "reform," but experience soon teaches the operator to place very little reliance on these protestations.

However, the subject does have one real advantage, which may not appear so to him. He is what he is because of the pleasure principle. But he is living in a very real world and the hand of society may fall with brutal force on the pervert, much more so than on any of the cases so far mentioned. The results may be very unpleasant, so unpleasant in fact that they will outweigh the immature pleasure drive which is the cause of his trouble. In this case he may give the doctor genuine co-operation when he seeks a cure.

Even so, results are none too hopeful. Rarely indeed does the homosexual succeed in readjusting to a normal sex life. The reason is the same as with the hysteric. The pleasure principle has led him where he is and, he is quite satisfied with life—unless he crosses the law. The psychoanalyst would say there is a weak spot in his personality synthesis. Instead of developing into a normal adult, facing adult reality, he became arrested—fixated—at an earlier stage of development. A more simple explanation would be in terms of suggestion. Seduced at an early age, this experience—suggestion—made such an imprint on the sensitized brain plate that it cannot be removed. Inasmuch as the resulting activity is pleasant, he does not try seriously to fight the trend but accepts it. There will always

be this weakness with the constant danger of a backslip into the perversion.

### *Speech Disorders*

The writer once listened to an excellent paper on stammering by a well-known authority, read before a medical society. Following this paper the writer asked the author if he had ever tried hypnotism in the treatment of speech disorders. The speaker looked confused, then embarrassed. How was he to be courteous and answer such a silly question? He was obviously puzzled to find that any member of a self-respecting medical organization could "lead with his chin" in such childish fashion. But he displayed the tact which is characteristic of the medical profession and passed the question off much as the reader would pass off a child's question about black magic or fairies.

Yet, in Europe, hypnotism is a well-recognized means of attacking speech defects, though not a sure cure, by any means. Those of us who have tried to handle cases of stammering know how extremely resistant to treatment this condition may be. We do not even know what causes it. There are seven good theories and probably seventeen more that are not so good. Moreover, we can cure some cases with everything from the gypsy's thread around the finger to psychoanalysis. Some others seem absolutely incurable.

Hypnotism has its list of cures and also its list of failures. It is a very curious thing to note that the stammerer is generally a fairly good subject. Moreover, he will usually talk without any difficulty in the hypnotic trance. This is so much a relief to the sufferer that the writer has had cases in which the stammerer refused to wake up, pleading to remain hypnotized just a little longer so that he could really enjoy talking.

W. E. Moore writes on the subject of hypnotherapy in speech disorders.

### *Heart Disease*

It is difficult to say what proportion of heart disorders is due to functional causes, that is to say, due to "nerves." We will make a guess and say fifty per cent, which is possibly on the low side. The

stresses and strains of our modern industrial civilization, especially among men in the executive class, undoubtedly tend to increase the percentage in the group of heart disorders which we term functional. As the president of one of our great national organizations once told the writer, "We pay our executives far more than they're worth. But they aren't going to be with us very long."

This field would seem to hold promise for hypnotherapy, both for the direct relief of tension by means of hypnotism and for the discovery of underlying causes of this tension which may exist in the unconscious mind. J. M. Schneck of Long Island University writes on this subject.

### *Asthma*

There is always a strong suspicion in the psychiatric fraternity that a great deal of asthma is caused by just plain nerves. To be sure, we know that various allergies play an important part in the causation of asthmatic symptoms. But how large a part? So many human ailments slip over into the field of psychosomatics, that branch of medicine which stresses dual control, mind on body, body on mind, and the vicious circle resulting from such control. We have avoided discussion in this field, since it can become very complex, and we have enough new concepts with which to deal. We have tried to cover those concepts without introducing too many new terms.

But if a good proportion of asthmatic symptoms do have a nonorganic basis, if they are due to the mind, to nerves, then obviously hypnotherapy must be considered as one means of treatment. Considerable has been written on this subject. Miller and Baruch in Los Angeles and S. J. van Pelt, London, England, discussed the matter in very able fashion.

### *Headache*

Here again, what is due to mind and what is due to body? Obviously, if that headache is due to, say, brain tumor or eyestrain, then its palliation may do more harm than good. On the other hand, we have every reason to believe that a great deal of headache is literally in the mind, or at least caused by the mind, by the strains and tensions that go with human life in this hectic age. W. T.

Heron at the University of Minnesota has written recently on the subject of migraine. He has worked out an interesting technique wherein he uses hypnotic records specially prepared for the individual case. These seem to be satisfactory.

### *Hypnotism In The Aged*

This whole field of Geriatrics, as it is called, is becoming more and more important in our modern civilization. Only one group of the psychoses, of the hospitalized mental disorders, has shown a definite increase during the last ten to twenty years. These are the so-called senile psychoses, the psychoses of old age. The reason is fairly obvious. Our doctor friends have increased our life span. They refuse to have us liquidated by the killers of former years, such as typhoid, diphtheria, smallpox, now even infantile paralysis. But sooner or later, no matter what they do, the machinery simply wears out. Some one organ or group of organs can no longer take the strain. If that organ happens to be the brain then we have the so-called senile psychoses.

Of course the cause is organic, the breaking down of the nervous tissue in the brain or the interruption of circulation to the brain. Hypnotism can do nothing with that, but there are a great many side symptoms which offer possibilities. These senile patients are conspicuously disturbed, restless, irritable. Here are a group of cases where we are perfectly justified in treating symptoms, for the cause is beyond our scope. Hypnotherapy is becoming interested in the problem. M. Brenman and R. P. Knight, Stockbridge, Massachusetts, discussed this subject in a recent article.

We could go on at considerable length, citing a wide range where hypnotism and hypnotherapy are being brought into use. H. W. Bird at the Winter VA Hospital, Topeka, Kansas, uses hypnotism in Parkinson's disease, shaking palsy, to ameliorate the symptoms. F. J. Kirkner writes of its use in the treatment of hiccups, and J. G. Watkins on the subject of impotence. G. M. Smith at City College of New York tells of treating a case of stage fright originating at the age of seven, also the curing of a phobia originating around the age of three. M. E. Cohen and S. Cobb at Har-

vard write on hyperventilation. We could cite many more illustrations.

Hypnotherapy is on the march. During the past five years we have made more progress in this field than in the preceding fifty years. This is probably because hypnotism and psychoanalysis have buried the hatchet, have decided to work together rather than at cross purposes. The future looks very bright.

CHAPTER VIII

# *Hypnotism in Crime*

THERE ARE two aspects to the question of hypnotism in crime. First, can it be used to further the commission of a crime and, secondly, can hypnotism be of use in the detection of criminal acts. The answer to both questions is "yes." Then, of course, being a psychologist, the writer will hedge. In Chapter I we cited a case of murder involving hypnotism. The case is very real, the victim very dead, and the hypnotist is serving a life sentence. So the answer to that question is "yes."

And then again "no," for the hypnotist, in this particular case, should have failed. He was a blundering amateur. In other words, we are not dealing with a sure-fire technique which lends itself easily to criminal ends, but one which needs great skill and imagination.

Furthermore, proof in the laboratory is almost impossible. No fake setup will satisfy our critics, although many of these experimental situations do come pretty close to giving us the real picture of a criminal act. But the hypnotic subject is so shrewd, so capable of detecting what is fake and what is reality, that we cannot be sure unless the crime is genuine; and this would certainly never be reported in the literature.

Then we dare not use hypnotism in the detection of crime. So great is the prejudice against its use that any counsel for the defense could shatter the state's case if he could prove to the jury that the police had even attempted to use hypnotism. This is no blind assertion. It has already occurred.

First of all, consider the theory that the human will do nothing in hypnotism which he will not do in the waking state, which is utterly unproved and unquestionably false. We need but to watch the performance of a good stage hypnotist to realize that our friends would not make unqualified fools of themselves on the stage if they were in a "normal" condition. Hypnotism is first

cousin to somnambulism, to talking in one's sleep, and we have cases in the literature where sleeptalkers have really "talked." Again we have many cases of compulsions in ordinary life, such as the compulsion to steal or to set fires. We know that these are irresistible, we know further that they are in reality posthypnotic suggestions of a somewhat unusual type. We can infer that what we obtain here we could also obtain in hypnotism.

Let us ease ourselves gently into this picture with a couple of cases, somewhat humorous, somewhat complicated. We will use techniques which our psychiatric friends of the previous chapter would never dream up. After all, why should they?

But, while humorous, these cases illustrate an attack which could be desperately serious to innocent people in the hands of a skillful and unscrupulous operator. See if you can follow the techniques used and see the implications. We quote actual cases from the writer's experience while he was at Oxford, England.

### *The Perfect Alibi*

We hypnotized Smith in Oxford. He spent the afternoon and had tea with us, for our friend Brown had made some very cutting remarks on hypnotism and we decided he should be given a lesson. After the tea we retire to our room. Smith was hypnotized all the time and Brown had not detected it.

"All right, Smith, wake up." Smith started, looked puzzled, and was immediately "on guard." (We find that many subjects adopt this attitude in such experiments. They realize in a vague sort of way that something has happened and are preparing to stall and "cover up" until they get the lay of the land.)

We talked about sports for the next ten minutes. Smith did not recognize Brown although he had been in his company for the last three hours. Finally we came to the point.

"Where were you this afternoon?"

"In London. Spent the afternoon playing bridge with our friend, Black."

"You were in Oxford all afternoon and had tea with us here an hour ago," said Brown.

Smith has a sense of humor and was not caught off guard. He

turned to the writer with a broad grin. "Is this one of your friends from Amesbury? He looks all right to me but you never can tell." Amesbury is a hospital for mental diseases.

Brown was irritated. "Don't bluff. I say you were in Oxford all afternoon."

"Poor fellow! And he probably has a wife and children," was Smith's exasperating comeback as he retired into the afternoon paper.

Needless to say, Smith, an excellent subject, was acting under posthypnotic suggestion. He had been told in hypnotism that Brown had just been released from Amesbury, had delusions of grandeur and believed he had a divine mission to debunk hypnotism. So he took an unholy delight in ragging Brown.

Brown was not to be put off. He told Smith he was lying and that the Black in London was a myth. Smith complacently agreed and suggested we drive him back to Amesbury. Finally, after much baiting of Brown, he agreed to accompany us to London and see Black. The latter was also a fine subject and had been coached in advance. Black met us at his apartment.

"We've brought a friend to see you," said Smith. "Not violent. Just a government guest at Amesbury. Come in, my Lord. This is the Duke of Normandy."

Brown stuck to his point. "Where was Smith this afternoon."

"Playing bridge in my apartment."

"He was having tea with me in Oxford."

"Oh, oh," said Black, "always best to humor them. You're quite right, sir. He was undoubtedly having tea with you in Oxord. Do sit down."

"Where are the other two partners?"

"Sorry, sir, but they just left by plane for Siberia. They have a pink fox farm there. Remarkable thing. Cross a purple martin with a Siberian wumpus and you get a pink fox. Astonishing, don't you think? By the way, how is my good friend, Dr. Wright?" Wright is superintendent at Amesbury.

Poor Brown was literally stymied and took a terrible riding for the next quarter of an hour, but the worst was yet to come. He was getting more and more uncomfortable. Smith and Black obviously took him for a patient from Amesbury—as they had been

instructed in hypnotism—and were delighted to have him at their mercy. Finally he arose.

"Well," he said testily, "I must be going."

"And where are you leaving for, Duke?"

"The station and Oxford."

"That's what you think," said Smith, "but actually you are going with us on a nice moonlight drive to your castle at Amesbury."

"Now, see here, this is going too far."

"Tut, tut, Duke. Think of the consternation at the regal residence if the Lord of the Manor turned up missing. We are your devoted slaves and you are going for a little ride. Come along." And along he went with the three of us.

Five miles outside Oxford we took mercy on him. He was asked to step into a "pub" for a moment. We followed less than a minute later but all was now changed. The writer had already removed the delusions when we sat down at Brown's table. They did not even recognize Brown.

"Mr. Brown," the writer said, "I wish to introduce two friends, Smith and Black, both of Oxford. We are driving through. Why not come with us?"

From then on everyone was happy. Later in the evening Brown asked, "Where have you fellows been all day?"

"Oh, just driving around," said Black.

"You know," said Brown, "your friend here has a reputation as a hypnotist. Has he ever tried it on you fellows?"

"Between ourselves," said Smith, "that's what it is. A reputation. He couldn't hypnotize a cat. As for hypnotizing us, he's never been so foolish as to try. All pure bunk."

"Yes," said Brown, "that's what I thought a few hours ago."

"What's that?"

"Oh, nothing. Just thinking."

This absurd episode really illustrates a great deal. Had the delusions not been removed, Smith and Black would have insisted on their original story, namely that they had been playing cards in London all afternoon. Now, if we care to translate that into the field of crime, we see the ease with which we could prepare a watertight alibi. Of course the subjects would have to be prepared well beforehand and we could leave none of the loopholes which

are so evident in this experiment. But it could be done and would be a relatively simple trick. It would have three great advantages. First, the witnesses in question would believe absolutely in what they said. They would have nothing to cover up and, with careful preparation, their stories could be made to agree on all essentials.

Secondly, we would not have to depend for these alibis on shady figures from the criminal world. Any two or three good hypnotic subjects would be suitable, and these could be chosen from among honorable and law-abiding citizens.

Thirdly, there would be much less incentive for them to go back on their word and for the unconscious to expose the hypnotist. Not only are they in no personal danger themselves but they are telling what is to them a true story in the interest of a friend who is unjustly accused. That is a very different thing from being on trial themselves, faced with disgrace and imprisonment.

It is the writer's opinion that this line of attack would succeed with the majority of somnambulists. The reader must bear in mind, however, that this is pure conjecture. Such an experiment has never been tried, at least to the writer's knowledge. If tried, it certainly would never be reported in the literature. The difficulties encountered in arriving at any conclusive results in the field of hypnotism and crime are very great.

Then we have other possibilities, many in fact, but we will cite one more specific line of attack. We know that it is possible to induce hallucinations and delusions in hypnotism and that these can be made to carry over into the conscious state with great vividness.

### *A Frame-up*

For example, the writer more by way of a joke than to prove a serious point, introduced a friend of his to two men strange to him but well-known to the writer. These latter, excellent hypnotic subjects, had been carefully coached as to their actions.

After a brief conversation the writer informed his friend that his new acquaintances had a serious charge to make. Last night on Boar's Hill, just outside Oxford, they saw him run down and kill a pedestrian, then leave the scene without reporting to the police.

The night was foggy—common enough around Oxford—and he evidently did not see their car parked in a lane not ten feet away. What did he propose to do about it?

The friend was flabbergasted. As a matter of fact, he *had* been on Boar's Hill the previous night and a man *had* been found dead by the side of the road, hit by a car. Moreover, this chap had a reputation for reckless driving. On a foggy night he might very easily have struck a man walking by the edge of the road and been none the wiser. The two "accusers" had also been on the hill to a bridge party, so the situation could have been very nasty. As it was, however, the accused was quickly relieved by the assurance that the whole thing was a joke, but not before he realized that the two witnesses quite believed their story and intended to take action with the police.

May we add that it is best not to play tricks like this on your friends if you hope to keep them as friends. Even though the delusions were removed from the minds of the two witnesses and they behaved like gentlemen from then on, the shock was so great to the accused that he avoided the group in question in the future.

The reader will see the ease with which an unscrupulous operator could "frame" an innocent man, and no one be any the wiser. The witnesses would be telling a perfectly straight story. They saw it with their own eyes, so they believe it. They actually saw Jones enter the burglarized bank, push his wife into the river, or forge a check for $5000.00. To the witness there can be no doubt as to the truth of this statement, nor has he any great moral struggle to overcome in order to stick to his story. He is in no danger himself and he is helping the law in bringing a criminal to justice, so he thinks.

Let us now take a third example of hypnotism in crime, this case using a totally different technique. The reader will note that the possible techniques used in this and the following chapter are very diverse. There is no one approach to the use of hypnotism in crime or in warfare. Actually we will be just as varied here as was the psychiatrist of the previous chapter, yet our approaches will be as far apart as the poles. Hypnotism is an intricate and complex science.

*Or Murder*

Will a subject commit murder in hypnotism? Highly doubtful—at least without long preparation, and then only in certain cases of very good subjects with, shall we say, no particular moral code.

Yet, strange to say, most good subjects could be led to commit murder—a legal, but not an ethical, murder, so to speak. In the writer's opinion there can be very little doubt on this score. Let me demonstrate how it could not be worked, and how it could be worked. We hypnotize a subject and tell him to murder a certain man with a gun. We hand him a loaded revolver. In all probability he will refuse. For obvious reasons, the writer has never made the experiment. Corpses are not needed in psychological laboratories. But a hypnotist who really wished a murder could almost certainly get it with a different technique.

Say the chosen victim will be in his office at 3:00 P.M. on a certain day. The operator hypnotizes the subject just before that hour, gives him a gun, tells him to go to the office, point the gun at the victim and pull the trigger.

Then he tells his subject that, of course, the gun is loaded with dummy ammunition, and that the operator is putting through a very important experiment for the police in order to prove the possible use of hypnotism in crime. He would never dream of taking such long chances as to allow the subject to attempt murder. But actually the revolver is loaded with real ammunition!

What would happen? No one knows, for the experiment has never been tried. Erickson has used a similar test with negative results; but the writer strongly suspects his findings are affected by the attitude of the operator. M. H. Erickson is emphatic that hypnotism cannot be used in crime, and that subjects are uncanny in their ability to detect an attempt to use them in this way. W. R. Wells and L. W. Rowland disagree with him. Personally, from what the writer knows of hypnotism, he would not allow the experiment to be made on himself for any consideration whatever. It is his opinion that murder would be committed.

Of course, the reader can lodge a very obvious objection to the writer's case of murder in hypnotism. The subject has not committed a murder in the real sense of the word. He was tricked into

manslaughter, if we wish; he did not really commit murder. But this is a very practical world. We would, of course, remove from the subject all knowledge of ever having been hypnotized and render it impossible for anyone else to throw him in the trance. All he could tell the jury would be that he must have had an irresistible impulse to kill a man, which would mean an institution for the criminal insane rather than the electric chair.

Would he still be unable to recall the incident when under trial conditions, when his life was actually in danger? Would the hypnotic suggestions still hold in such a situation? Once again, no one knows. But note that from one very practical point this does not mean too much. More than one psychologist has been confused on this point. Murder is murder. In our imaginary case the hypnotist set out to have a man murdered; he succeeded. Perhaps he or his subject who committed the murder are brought to justice. That does not alter the fact that, assuming the facts as outlined, hypnotism was effective in the production of crime.

Actually the writer is convinced that, using the technique under discussion, a skilled hypnotist would never be brought to justice. That is a totally different topic for discussion.

The three examples we have cited would seem to indicate that criminal action as a result of hypnotism is quite possible. The murder cited in Chapter I places it beyond all doubt. We could let it rest at that but science does not proceed that way. When will it work and under what conditions? This is what we need to know.

Moreover, hypnotism in crime is very close to hypnotism in warfare, the subject of our next chapter. And the military are very exacting taskmasters.

If an individual wishes to try a crime in hypnotism at the risk of landing behind bars, that is his business. But the military cannot afford to make mistakes. How, why, when, under what circumstances, are to them very pertinent questions. They need precise and accurate information. This is very difficult to get.

### *Evidence from the Laboratory*

Why not make crucial experiments with hypnotism itself and find out? Because such experiments at once leave the experimenter open to criminal action and could never be reported in the litera-

ture. Will the subject steal one hundred dollars from someone's pocket? Suppose we try. He either does or he does not, which seems to the writer to depend on the operator and on operator-attitude. With Erickson he does not, with Wells he does. But we get nowhere in either case. If he refuses, the writer of this book will say it is a matter of attitude on the part of the operator. Erickson, one of the very best in the country, will naturally deny this but he will have a difficult time proving the contrary.

And if the experiment succeeds? Still unsatisfactory. The critic will say that the subject realized all along it was a hoax and only did the act to please the operator. To be sure, it looks genuine, but what will happen if we pull this subject up before a judge, with the prospect of six months in jail staring him in the face. Will he still protect the hypnotist? No one knows, for it cannot be tried. We cannot bring such things to court action, for the court does not play. If that money was stolen, someone goes to jail, either subject or hypnotist, and no operator would dare take the risk. It would mean professional ruin in either case if he ever published his results.

The best we can do is to try to arrive at a conclusion of probably yes or probably no. The subject in hypnotism is not "asleep" in any sense of the word. He is just as wide awake as he ever was, just as alert, just as discerning. But he is highly suggestible and very co-operative. He will do anything to oblige the hypnotist, within certain limits.

But it is very important to note that those limits are very different with different people. Some people may refuse point blank to forge a check under any circumstances when in the trance; others appear to have no marked scruples on the subject. The reader must bear in mind that we do not claim *all* good hypnotic subjects would commit a criminal act as the result of hypnotism. Far from it. We only assert that, from the evidence we have, it seems highly probable that many subjects would so do if urged on by a good operator.

One of the very best experiments demonstrates the difficulty of proof. L. W. Rowland at Baylor University arranged a very ingenious apparatus to see if the hypnotized subject would act in such a way as to harm himself or others. He placed a rattlesnake

in an open case and irritated the beast until it was in a very dangerous mood. He told the subject the snake was a piece of rubber pipe. Then he ordered his subject to reach for the pipe. This sounds very dangerous but between the subject and the angry snake was a sheet of "invisible glass," a preparation which is literally invisible, for it is so made that it reflects no light at all. Strangely enough, the subject promptly reached for the snake and was saved only by this obstruction. The writer would have sworn that such an experiment would fail, which merely goes to show that one cannot tell beforehand what will happen.

Rowland now altered his procedure. He himself was to be the victim, so an assistant took over the handling of the subject while Rowland sat behind the invisible glass. The assistant explained to the subject just how dangerous sulphuric acid is, especially when it comes in contact with human flesh. Next he handed the subject a glass of genuine acid and suddenly said, "Throw it in his face." The subject promptly did so, Rowland being saved only by that invisible barrier.

Conclusive and satisfactory? Not at all, but the best work yet done along this particular line. Not conclusive because the critic can find at least one flaw in the experiment, possibly others. The writer took this report, on its publication, to one of our best authorities on hypnotism. He read it through and said at once, "How do you know that glass is invisible? To you, yes. But the hypnotic subject may, probably does, have much greater keenness of vision than does the normal individual."

He then referred to the type of experiment, mentioned in an earlier chapter, wherein the subject picked out his "mother's" picture—from an earlier hallucination—from twenty perfectly plain white calling cards by recognizing some trifling flaw in the surface of the card. Such skepticism is pretty hard to meet. Asked how it would be possible to have this experiment made airtight he replied, "Take away the glass."

"In that case there might be a corpse in the laboratory."

"Exactly. But I see no other way to meet the objection."

In other words, these experiments by Rowland would seem to indicate that *in all probability* a person will act in such a way as to injure himself or others as a result of hypnotic suggestion. To *prove*

this to the satisfaction of science, he would literally need a corpse in the laboratory.

W. R. Wells at Syracuse University has also experimented along original lines in his investigation of the possible use of hypnotism for criminal ends. He uses what appears to the author as a much more promising line of attack in that he tries to avoid too great a conflict on the subject's part. His experiments have consisted mostly in having his subjects steal small sums of money from various acquaintances. He eases the shock by, for example, telling the subject that he himself left a dollar bill in the friend's room, thus producing a delusion that the money is really his own. Then the subject is instructed to get the same—and does so! Moreover Wells finds it very easy to remove all knowledge from these subjects of ever having been hypnotized.

This line of attack used by Wells seems to the writer excellent. He does everything possible to avoid conflict, to obtain the co-operation of his subjects, to "fool" them, if you will, by assisting the operator in an important psychological experiment. This line of approach seems to offer greater possibilities than the amazing "frontal" attack by Rowland. Every time the writer has tried Rowland's technique he has failed miserably, which does not in any way cast reflection on that investigator's work. The writer did not believe it possible and that old problem of operator-attitude came in. The subject realized this and behaved accordingly. On the other hand, the writer has succeeded in having a wealth of bogus checks forged by subjects who were merely co-operating in a psychological experiment. Needless to say, the checks in question were torn up before they caused any embarrassment.

Against this work of Wells, we can lodge that same type of objection which always meets us like a stonewall. What guarantee have we that the subject was not playing his usual farce, that he had picked up from other students that he was supposed to stage his "act" and that nothing serious would happen? No matter how carefully those Syracuse experiments were conducted, the objector can always fall back on this line of criticism.

And what guarantee have we that the subject, if brought to trial, would not recall the whole thing and expose the operator? After all, if the crime were really serious and the subject were faced with

ten years in prison or even death, the unconscious would have every reason in the world to "talk." The objection here seems almost unanswerable. A genuine trial and a genuine prison sentence would be about the only way to determine whether or not, in football parlance, the line would hold. There are ways around this danger, as we will later see, but those means could only be used in the genuine commission of crime.

M. H. Erickson, at Phoenix, Arizona, in sharp contrast with Wells, Rowland, and the author, finds no evidence whatsoever that the subject will commit criminal acts. Moreover, Erickson has probably had more experience with hypnotism than any of the others. He works in a setting where popular prejudice means nothing and he works hard. He finds that the subject balks at every suggestion of criminal action. But the writer feels this must be due to operator-attitude. The subjects realize Erickson expects negative results and they produce them. The reader will note that the writer makes this statement quite out of thin air, but he can see no other possible explanation. If one reliable group of investigators get positive results and if another finds the results wholly negative then we must seek some explanation. In this particular field of science the writer feels that operator-attitude is about the only way to explain the conflict, not only with reference to hypnotism and crime but elsewhere as in the case of Nicholson versus Young quoted in an earlier chapter.

Of late two excellent articles have appeared. J. M. Schneck reports the case of a soldier, carrying out a posthypnotic suggestion, who absented himself from duty, an offence serious enough to bring about a reduction in rank. In this case the offence was quite inadvertent; Schneck had no intention of producing antisocial conduct.

J. G. Watkins also reports a series of experiments which, to me, are very suggestive. One enlisted man could be induced to assault a superior officer (a lieutenant colonel) with what appeared to be murderous intent, and another to give away secret military information. Watkins admits that the controls were not as rigid as could be desired, but it is very difficult to see how conditions can be made satisfactory in such cases. An actual murder might have

clinched the matter to everyone's satisfaction, but most psychologists are allergic to penitentiaries.

We again stress the fact that hypnotism cannot be treated with the same outlook as the physical sciences. The speed of light is in no way dependent on the attitude of the experimenter, but the use of suggestion in any walk of life, including hypnotism, is so dependent. The orator is a success or a failure as he plays on our emotions and makes his suggestions with confidence and vigor. Suggestion works under the same laws, in hypnotism or out of the trance. It would seem just as difficult to predict the reaction of the hypnotic subject to a specific suggestion as it is to predict that of the individual member of a crowd listening to a Hitler or a Mussolini. "Probably" they will do so-and-so but then again they may not behave in such a way.

Then there is that very important factor of individual differences, so important to the whole field of psychology. The "average man" is a myth, a very useful abstraction for the statistician, but he simply does not exist. We all differ one from the other, in size, or strength, intelligence or emotional control, "will power" or lack of it. Similarly, even in the very best of subjects we would expect to find a great range in their ability to resist criminal suggestions. Such being the case we would reasonably suppose from our distribution according to the normal curve that we would find some subjects absolutely immune to any such suggestion from any operator. At the other extreme we could reasonably expect a group who would fall easy victims to almost any technique. In the middle, we would find the majority of subjects, people who would be reasonably resistant to a direct, frontal attack, so to speak, but who might be tricked into criminal action just as we can trick them into the trance by using the disguised technique.

Of course, we have no proof for this statement. It may be that war will give us the answer, for in war the belligerents are not worried over the ethics of a situation. They demand results. The use of hypnotism for either the commission or detection of crime is very similar to its possible uses in warfare, which we discuss in the following chapter.

Yet here again the situation will be very confusing. It is reason-

able to suppose that the military have answers, but our military friends do not talk.

The writer recently had lunch with one of them, who pulled a bluff of absolute ignorance on topics with which he was perfectly familiar.

"Darn you, John, you are typical of your breed. You talk longer and say less than any group in the country."

"Well, after all, that makes sense."

The reader will now begin to appreciate our impatience with those writers who make the blanket statement that it is impossible to induce criminal actions in the hypnotic subject. Erickson alone has actually experimented on the subject to any great extent and the writer grants that his opinion certainly carries weight. The writer of this book may yet have to eat his words that Erickson's negative results are due to operator-attitude. But we must make that statement at the present moment, and await further results.

Our complaint is that other writers who adopt this negative viewpoint use so little imagination. Their attitude is that there is only one way to have a subject commit a crime. We hypnotize him for the first time at 10:00 A.M. At 10:30 we hand him a knife and say, "Go murder your father." The old gentleman is still hale and hearty by 11:00 A.M. so we have proved our point that it can't be done. If the gentleman in question *had* been murdered, the writer, for one, would have been very much astonished. Things just don't happen that way, in hypnotism.

When we discuss the possibility of using hypnotism for criminal ends we must credit the hypnotist in question with being intelligent and with having imagination. He will do everything in his power to avoid any too direct collision with his victim's moral sense. He will also recognize that subjects in somnambulism have different characteristics just as do persons in a normal state. All are suggestible to an unusual degree but when these suggestions cross their ethical standards, then every law of distribution would tell us that some can resist such suggestions with much greater effectiveness than others.

Yet, though he believes it *could* be done, there would seem to the writer very little danger from hypnotism in crime. Granted a highly skilled and intelligent operator, the possibilities exist. But

there are very few such persons in this country and none of them has as yet established a criminal record. Any "amateur" or unskilled enthusiast would be almost certain to bungle the job. He would not realize the limitations of hypnotism, the fact that persons in hypnotism respond in different ways, and the necessity of not antagonizing the individual's ethical standards. He would be pretty certain to end in jail.

We must bear in mind that hypnotism, much in its present form, has been known since the days of Liébeault in the 1860's. Yet in a century we have had few authentic cases of its use for criminal ends. This does not prove everything but it does prove that its use for such purposes is neither easy nor obvious. The criminal would quickly have absorbed it in his technique had the case been otherwise. Our modern improvements in methods and the active investigation of this subject have reawakened a very grave possibility of the use of hypnotism for criminal ends but even so it could never be a tool for the incompetent amateur, who, experience shows, has always come to grief.

The police are fully aware of any dangers which may be inherent in hypnotism and would be quite competent to uncover the work of any but the most skillful operator. Even in his case we are still faced with the unsolved problems we have outlined in previous pages. No one knows the answer for the question is unanswerable without the actual commission of a criminal act. Again we assure the reader, for his own peace of mind, that our Federal Bureau of Investigation is fully aware of every possibility in connection with hypnotism and is extremely efficient in all its activities.

Writers on scientific subjects love to summarize so let us collect our thoughts on the first part of this chapter, namely, the use of hypnotism for criminal ends. Why have we not settled the matter once and for all in the psychological laboratory? Let us review some of the "hitches" to this proposal.

First, we have mentioned the matter of operator-attitude. We all know the uncanny ability which a good subject has in reading the wishes and intentions of the operator. The communicated content and the communicating personality tend to be experienced together.

Second, we mentioned the matter of individual differences among subjects. Liébeault and Bernheim agree that about six percent of somnambules could be induced into antisocial behavior. Heyer maintains, on the matter of rape, that this would be possible only when unconscious repressed impulses in the subject reciprocate the demands and wishes of the operator and ethical limitations fail.

A third point strikes us as very important and consistently ignored, namely, time as a factor. Erickson points out that, in psychotherapy, hypnotism is to be regarded as the starting point towards systematic re-education. J. G. Watkins, again on the subject of psychotherapy, says that "he who resorts constantly to direct suggestion will find many failures. . . . We must patiently and gradually initiate changes in the personality." This can work in reverse English. If we can use hypnotism for ethical purposes we can use it for the opposite. We may use it for integration; we can also use it for disintegration. P. L. Harriman is very suggestive on this point. Six months may accomplish results which would be impossible in six hours.

Fourth is the sheer question of technique. Both W. R. Wells and M. H. Erickson stress it, particularly in respect to obtaining a sufficiently deep trance. This is a matter to which most of us have not given sufficient attention.

Fifth, and probably the most annoying of all these "hitches," is the matter of setting up an experiment which will give unequivocal results. L. W. Rowland's experiment would have been excellent without the invisible glass. Watkins' work would have been convincing had the soldier been allowed to strangle the colonel. In short, we always have this suspicion of "play acting." The gun is loaded with dummy cartridges, the forged check will not be cashed, and the subject senses this. Indeed, it is difficult to see how we can set up a really convincing experiment which would not place the operator in a very serious situation with the law, but it can be done.

Sixth, there are certain aspects of hypnotism which give it a very sinister appearance when we talk of antisocial behavior. Whether or not a person can be hypnotized against his will is a mere quibble. He can certainly be hypnotized without his con-

sent. We dubbed this the disguised technique. J. M. Schneck and M. H. Adler have made important contributions here. It is a simple matter to remove from the subject all knowledge of ever having been hypnotized, equally simple to make it impossible for anyone else to hypnotize him except such people as the hypnotist may designate. Also, using posthypnotic suggestion, it is possible to hypnotize such a trained subject at literally a moment's notice, using some such cue as pulling the left ear lobe with the right hand.

One excellent subject, so trained, had been reading one of my manuscripts.

"I can believe everything you say," he said, "but one thing. When you tell me that you can remove all knowledge of ever having been hypnotized, I simply don't believe it."

"Jack," I said, "have you ever been hypnotized?"

"No."

"Do you think I could hypnotize you?"

"No!"

In one second he was hypnotized.

Finally, we have that very puzzling matter of "act" as opposed to "intent." We trick a man into committing a murder, but he had no intention of doing so. The legal problems arising from such a situation can be rather intricate.

### *Crime Detection*

Let us now turn to the other side of this fascinating picture. Hypnotism might be used for criminal ends within the limits we have already outlined. Can we reverse the process? Can we use hypnotism in the detection of crime? It certainly has its possibilities. Up to the present, popular prejudice has prevented any police department from openly using this device, but we can look forward to a time when this prejudice may not be quite as unreasonable.

From the viewpoint of logic, society is totally irrational. It will permit our police to use "third degree" methods which may be pretty brutal. But hypnotism? Never! Of course, we, as individuals, disapprove of the third degree, but, on the other hand, we don't get all "het up" about it. That is a matter for the police to handle and we more or less let them suit themselves. But those same police know very well that if any police department dared openly

to use hypnotism in the detection of crime, the public might get very much "het up." Yet hypnotism would be far less brutal than the mildest third degree. And it might be much more effective. Truly the human mind does work in fearful and wonderful ways.

Perhaps the most obvious use we could make of hypnotism in the detection of crime would be that of obtaining information. We at once are confronted with the same old question, will the subject in hypnosis "talk." There is very little evidence either for or against, but in the opinion of the writer there will be a certain proportion, at least, of suspected or convicted criminals who, hypnotized, and under direct questioning, will "talk."

But why use direct questioning? Why try to use a club when there is much better chance of success with more subtle tactics? The police are seeking information and are not fussy about how it is obtained as long as it throws light on the case. The hypnotic subject has a memory which is often startlingly good for past events. So we play a little game with him, in hypnosis, which apparently has nothing to do with the crime in question. We are interested, we tell him, in having him demonstrate to us how well he can recall events in the past. Where, for instance, was he on Christmas Day a year ago and what was he doing? Then where was he two years ago? And three years? Then how about July Fourth?

All this questioning is done by the prison doctor or some one quite unconnected with the authorities. Moreover, the specific crime with which he is charged is never mentioned. But the police know very well that there is always hope if the accused will talk on any subject. There is a very good chance that he will let fall the clues which, when bound together, will lead to his confederates, his "hideouts," and finally to his conviction. Only after we had tried this method described above would we resort to direct questioning. All this would, of course, be with a subject who had been hypnotized by the disguised method, who knew nothing of ever having been hypnotized, and who could be hypnotized by no one else.

We should note that the hypnotic subject can be just as convincing a liar in the trance as awake. This will depend on the subject. There are cases where a subject has talked glibly, freely, falsely, and talked himself right into trouble. The most any good investi-

gator asks is that the suspect will talk. If so and if he is guilty, he will pretty certainly give himself away. Hypnotism can help here in that the subject is much less inhibited, talks more freely, than in the "waking" state.

What is the objection to using hypnotism on the criminal in this fashion? Again we say, popular prejudice, which is so strong that no law enforcement body has, as yet, had the courage to try, except in one or two very isolated instances. So strong is the feeling of the public on this matter that any lawyer or district attorney knows quite well that his case would be "shot" if the other side could prove he had attempted the use of hypnotism.

As a matter of fact, proof of it is even unnecessary. The writer knows of one case wherein the prosecuting attorney was known to be interested in hypnotism. The case for the defense looked almost hopeless when the lawyer for the defense had a brilliant idea. He coached the prisoner to claim that the state's attorney had attempted to hypnotize him before the trial. From then on the jury was definitely sympathetic toward the prisoner and the state lost the case.

### *Something New in Crime Detection*

Perhaps one of the most interesting possibilities for the use of hypnotism in crime is that of building up an informer service along the lines we later suggest for hypnotism and counterespionage in warfare. By the use of the disguised technique we locate a number of good hypnotic subjects among the criminal class. We then isolate and train these subjects, coaching them in hypnotism to look for certain information which is very much needed by the forces of law and order.

Under such posthypnotic suggestions, as explained in the next chapter, the subject would keep his "unconscious ear" always cocked in the direction of such information, but consciously he would have no knowledge of what he was doing. He would be promised immunity and reward in hypnotism for his acts, so as to ensure his loyalty. Then every so often the police net would gather him in on some minor charge, collect the information and release the prisoner in question. Such a proposal will impress the reader as being quite impossible but we ask that he read through the next

chapter before passing any hasty judgment. There is nothing at all impossible about such a procedure.

This line of attack would have a great advantage. The informer would have no conscious knowledge of his activities and this conviction of innocence would be his greatest protection. Moreover, consciously he would know nothing so that any attempt at forcing him to betray the scheme would be of little use. Lastly, we would not have any strong ethical code to combat in this group of people. Given the proper incentive, many of them would be far more willing to betray their friends than would the average reader of this book.

Such a technique has other interesting possibilities. If allowed a free hand, the authorities could proceed to plant such prepared subjects from the criminal class where it would do most good, in penitentiaries, prisons, and in criminal areas of our large cities, always with the idea of obtaining information which might, sooner or later, be of real use to the police.

There is another important fact which we must bear in mind about the use of hypnotism. Criminals, as a class, are not overly intelligent. They have a healthy fear of anything they do not understand. This we see clearly in the use of the so-called lie-detector, a very impressive piece of psychological apparatus which, by the measurement of blood pressure, rate and depth of breathing, and the psychogalvanic reflex, is often able to detect the fact that the accused is lying. To this apparatus we now add the ophthalmograph, an instrument which photographs the subject's eye movements. These seem to behave differently under emotional strain, as when the subject is trying to "cover up" a crime.

A friend in a police department tells a humorous story which illustrates just how the criminal can often be bluffed into a confession. Pete was accused of embezzlement amounting to over one hundred thousand dollars. The case hinged around forgery. Several specimens of the forged signature had been found in Pete's room, but Pete resolutely denied all knowledge of these. If it could be proved that he had practiced these signatures it would be easy to convict, but Pete was an old hand at this game. Try as they would, the authorities could not trap him into a confession. It was

finally decided to use the lie-detector in a last effort to get a statement.

The lie-detector is a forbidding-looking piece of apparatus, with all sorts of electrical attachments and three pens writing automatically on a moving strip of paper. Pete was introduced to the monster and was obviously uneasy. Then it was explained to him that this lie-detector was sure to catch him if he told a lie and he was "hooked up." The investigator asked several noncommittal questions and then said:

"Pete, do you know who forged those signatures we found in your room?"

"I do," said Pete, to the amazement of the police.

One or two more irrelevant questions and then:

"Pete, did you forge those signatures yourself?"

"I did," said Pete.

That tied up the case but, as the official humorously said, the lie-detector was a flat failure. There was no lie to detect. But it did frighten the culprit into a confession. One of the main uses of hypnotism might be right along these lines. It would be held as an unknown, mysterious threat over the head of the accused, and in many cases the accused might be so impressed that he would convict himself, as did Pete.

The reader cannot fail to be impressed with the very unsatisfactory nature of things in so far as the use of hypnotism in the detection of crime is concerned. But if he is quite fair he will also realize that this is no fault of science. The research worker is willing, even anxious, to help law enforcement along these lines, but he is also anxious to stay out of the penitentiary. As things now stand, popular prejudice is so strong that he might very easily find himself in serious trouble if he became a little overenthusiastic in his investigations.

CHAPTER IX

# *Hypnotism in Warfare*

THIS CHAPTER is not taken from a mystery novel. The facts and the ideas presented are, so to speak, too true to be good, but no psychologist of standing would deny the validity of the basic ideas involved. He might, of course, be somewhat startled at our proposed use of these basic ideas and techniques, for he has never given this matter much thought.

He might, he probably would, question our proposed application of certain techniques in certain specific situations. Will your controls hold? How long will that posthypnotic suggestion last without reinforcement? Can you count on complete amnesia? Where is your proof that no one but yourself and such others as you may designate can hypnotize that man? Questions such as these would be asked and are being asked, but such questions merely involve details of technique. The theoretical and factual basis of that technique no competent psychologist would question.

The use of hypnotism in warfare represents the cloak and dagger idea at its best—or worst. Even if we did know the answers to some of the weird proposals in this chapter, those answers could never be given for obvious reasons. The reader must use his imagination for specific outcomes in specific cases have not been made public—probably never will be made public. Any topflight physicist is familiar with the basic laws of atomic fission and he is quite free to discuss those laws. But he may or may not know what is happening on some government research project in this field. If he does know, he is not shouting it from the housetops, probably not even whispering it to his best friend. The same applies to hypnotism in the field of warfare.

Our interest here lies in some of the more unfamiliar sides of hypnotism which may make it of use in warfare. Again, no psychologist would deny the existence of such phenomena. But some

would very emphatically deny our proposal that these states and conditions could be used for the ends which we suggest. The reason for this skepticism is obvious, if we but consider the situation. Hypnotism in crime, either for the commission or solution of criminal acts, is very closely related to the possible use of hypnotism in warfare.

The only possible way of determining whether or not a subject will commit a murder in hypnotism is literally to have him commit one. No "fake" setup will satisfy the critics, for the hypnotized subject is not "asleep." He is very wide awake, willing to co-operate in all kinds of fake murders with rubber knives. But with a real knife or a loaded revolver? No one knows, for the simple reason that no one dares find out. The police would not see the point when they viewed the corpse and were told it was the result of a "scientific" experiment. Nor would the jury. Sing Sing and the electric chair would probably put an end to the career of the "scientist" involved in the act.

But warfare may, undoubtedly will, answer many of these questions. A nation fighting with its back to the wall is not worried over the niceties of ethics. If hypnotism can be used to advantage, we may rest assured that it will be so employed. Any "accidents" which may occur during the experiments will simply be charged to profit and loss, a very trifling portion of that enormous wastage in human life which is part and parcel of war.

Let us glance at certain aspects of hypnotism with which the reader should now be familiar. He will pardon what may appear to be repetition. The picture presented in this chapter has new facets and to make them clear a summary of certain points already covered is in order.

The reader probably is familiar with the general picture of the hypnotic trance, whether this be produced in the quiet of the laboratory or the glare of the stage. He knows that people can be thrown into this trance and while in it will do weird things. On the stage they will, at the suggestion of the operator, hunt elephants with a broomstick or fish for whales in a goldfish bowl. They will prance around the stage on all fours, barking like a dog, or give a good imitation of Lincoln in his *Gettysburg Address*. They will strip off most of their clothes at the command of the hyp-

notist or stiffen out between two chairs while he breaks rocks on their chests.

The reader knows of this. He may suspect that it is all "bunk," but he at least realizes what is supposed to take place. Suffice it to repeat here that it *does* take place and *can* be quite genuine. The psychologist in his laboratory may not favor quite so flashy a performance, but he can duplicate the tricks of the best stage "professional."

There are other sides to hypnotism far more important than those shown on the stage for the benefit of a wondering audience. One in every five adult humans can be thrown into the hypnotic trance—somnambulism—of which they will have no memory whatsoever when they awaken. From the military viewpoint there are a few facts which are of great interest. Can this prospective subject,—this "one-in-five" individual—be hypnotized against his will? Obviously, no prisoner of war will be co-operative if he knows that the hypnotist is looking for military information, nor will any ordinary citizen if he suspects that the operator will use him to blow up a munitions plant.

The answer to this very vital question is "yes," though we prefer to say "without his consent" instead of "against his will." We do not need the subject's consent when we wish to hypnotize him, for we use a "disguised" technique. The standard way to produce hypnotism in the laboratory is with the so-called sleep technique. The operator "talks sleep" to the subject, who eventually relaxes and goes into a trance, talking in his sleep and answering questions. Now suppose we set up a little psychological experiment on relaxation. That sounds harmless enough. We attach a blood pressure gauge to the subject's right arm and the psychogalvanic reflex to the palm of his hand, just to make everything look shipshape. These devices are for measuring his ability to relax, just impressive little gadgets to remove any suspicion.

Next we tell the subject he is to imagine himself falling sound asleep, since this will aid in his attempts to relax. We also point out that, of course, the very highest state of relaxation will be his ability actually to fall into a deep sleep while we are talking to him. We also stress the great importance of the ability to relax in this modern world of rush and worry, promising to show him how to

get results as one end of these experiments. All this is by way of buildup. Probably not one of our readers, if exposed to this procedure, would realize that this was preparation for hypnotism, but would co-operate willingly in this very interesting psychological experiment.

We then proceed to "talk sleep," much the same as in ordinary hypnosis, carefully avoiding any reference to a trance or making any tests with which the subject might be familiar, all the while checking on blood presure and psychogalvanic reflex to keep up the front. Finally we make the test of somnambulism, or deep hypnotism. We see if the subject will talk to us in his sleep without awakening. If this does not succeed, the subject wakes up completely, and in this case we simply repeat the experiment, hoping for better luck next time. But if we do succeed, if the individual belongs to the "one-in-five" club, the subject is just as truly hypnotized as by any other method, and from now on everything is plain sailing. By use of the posthypnotic suggestion we assure ourselves there will not be trouble the next time. We simply say, "Listen carefully. After you wake up I will tap three times on the table with my pencil. You will then have an irresistible impulse to go sound asleep." The next trance is just that easy to get, and the subject has no idea that it is the pencil which has sent him off.

Let us follow this process a little further. The operator has succeeded in hypnotizing the subject without his consent if not against his will. It is the same thing as far as practical results are concerned. But in this war situation he must go further if he is to attain the results for which he is striving. There must be no leakage, no talking outside the classroom. So the operator now removes from the subject all knowledge that he has ever been hypnotized. This is quite simple, again by the use of suggestion in the trance. We tell the subject in hypnotism that on awakening he will have no remembrance of ever having been hypnotized, that if questioned he will insist he knows nothing about hypnotism and has never been a subject.

But we must go even further than this. Once a person has become accustomed to hypnotism, has been repeatedly hypnotized, it becomes very easy for any operator to throw him into the trance. Obviously this will not do if we are to use hypnotism in warfare.

So we plug this gap again by suggestion in the somnambulistic state. We assure the subject that in the future no one will be able to hypnotize him except with the special consent of the operator. This takes care of things very nicely.

The picture we now have is quite different from that which the reader has associated with hypnotism. We sit down with the subject in the laboratory. We are talking about the latest boxing match when the operator taps three times on the table with his pencil. Instantly—and we mean instantly—the subject's eyes close and he is sound "asleep." While in trance he sees a black dog come into the room, feels the dog, goes to the telephone and tells its owner to come get it. The dog is of course purely imaginary. We give him an electric shock which would be torture to a normal person, but he does not even notice it. We straighten him out between two chairs and sit on his chest while he recites poetry. Then we wake him up.

He immediately starts talking about that boxing match! A visitor to the laboratory interrupts him.

"What do you know of hypnotism?"

The subject looks surprised, "Why, nothing."

"When were you hypnotized last?"

"I have never been hypnotized."

"Do you realize that you were in a trance just ten minutes ago?"

"Don't be silly! No one has ever hypnotized me and no one ever can."

"Do you mind if I try?"

"Not at all. If you want to waste your time it's all right with me."

So the visitor, a good hypnotist, tries, but at every test the subject simply opens his eyes with a bored grin. Finally he gives up the attempt and everyone is seated as before. Then the original operator taps on the table with his pencil. Immediately the subject is in deep hypnotism.

We now add another concept. We can coach the subject so that in the trance he will behave exactly as in the waking state. Under these circumstances we could defy anyone, even a skilled psychologist, to tell whether the subject was "asleep" or "awake." There are tests which will tell the story but in warfare we cannot

run around sticking pins into everyone we meet just to see if he is normal.

So rapid can this shift be from normal to trance state, and so "normal" will the subject appear in trance, that the writer has used such a subject as a bridge partner. He plays one hand in trance and one hand "awake" with no one any the wiser.

If the reader has followed us through the preceding chapters, he is in a position to grasp a final idea which is basic in this particular field. We mentioned the concept of multiple personality in Chapter V, and we pointed out the fact that in some cases these personalities can be totally unlike one another, as seen in the case of the Angel and Sally in the Beauchamp case. Robert Louis Stevenson's book, *The Strange Case of Dr. Jekyll and Mr. Hyde,* was an early description of personality changes which are quite familiar to the modern psychologist.

We further pointed out that multiple personality could be both caused and cured by hypnotism. Remember that war is a grim business. Suppose we deliberately set up that condition of multiple personality to further the ends of military intelligence.

Let us start with a very simple illustration. For example, we can hypnotize a man in an hotel in, say, Rochester. We then explain to him in hypnotism that we wish the numbers and state names of all out-of-state cars parked in the block surrounding the hotel. He is to note these very carefully in his unconscious mind but will have no conscious memory of having done so.

Then we awaken him and ask him, in the waking state to go out and get us a tube of toothpaste. He leaves the hotel and wanders around the block in search of that tube. Finally he returns, apologizing for his delay, saying that it was necessary for him to go entirely around the block before he noticed a drugstore in the very building itself. This, he says, was very stupid of him but apparently men are made that way. Did he notice anything of interest as he made his walk? "Nothing! Oh, yes, there was a dog fight down at the corner." And he described the battle in detail.

We now hypnotize him. He knows what we are seeking and at once proceeds to give us numbers and states of strange cars, very pleased with the fact that he can recall thirteen. He evidently enjoys the game immensely and is quite proud of his memory.

Then we awaken him and see what he knows in the conscious state.

"How many cars are there around the building?"

"I don't know."

"What are the numbers of the out-of-state licenses around the building?"

"Good heavens, I have no idea. I think there is a California car near the front entrance, but I have no idea as to its number."

A friend tries his hand.

"Now look here. You were hypnotized half an hour ago and you left this room under posthypnotic suggestion."

The subject gets irritated. "Look here yourself. I'm getting tired of that silly joke. This is the third time today you've pulled it. All right. I was hypnotized and saw pink elephants all over the lobby. Have it your own way." And the subject sits down to a magazine, obviously angry that this man cannot find something more amusing to say. Often the hypnotic subject will react in this manner. Push him just a little too far and he becomes irritated, obviously a trick of the unconscious to end the argument and avoid any danger of being found out.

There are some very interesting possibilities to this experiment if we care to use it in warfare. Consider the following purely imaginary picture. We take a very good hypnotic subject and send him to Cuba. (We name this country because such a situation would be absurd.) He is an employee of the X Oil Company and as such his only conscious interest is to see that his organization is well run and does a profitable business.

But in his unconscious mind he has other intentions. The aggressive Cubans are building a great naval base at Havana, an obvious menace to our overseas trade. So we station this man with his oil company in this city. Neither he nor the group in question need know anything of the arrangements. The instructions to his unconscious in hypnotism are very definite. Find out everything possible about the naval base. He is shown maps of this before he goes and coached as to just what is important. Nor is he ever allowed to submit written reports. Everything must be handed on by word of mouth to one of the very few individuals who are able to hypnotize him.

Under these circumstances we may count on this man's doing

everything in his power to collect the information in question. The reader's very natural reaction is, "Why all this rigmarole? Why not have any keen executive of that oil company do the job without calling in the added trouble of hypnosis?"

There are certain safeguards if we use hypnotism. First, there is no danger of the agent's selling out. More important would be the conviction of innocence which the man himself had, and this is a great aid in many situations. He would never "act guilty" and if ever accused of seeking information would be quite honestly indignant. This conviction of innocence on the part of a criminal is perhaps his greatest safeguard under questioning by the authorities. Finally, it would be impossible to "third degree" him and so pick up the links of a chain. This is very important, for the most hardened culprit is always liable to "talk" if the questioners are ruthless enough.

### *The Super Spy*

In the instance we are about to outline, we may or may not be dealing with multiple personality. This is a matter which could be argued at considerable length, but we shall use that term here. The little experiment I have just cited could be successful with any good somnambulist and would require about ten hours preparation. The example I now cite would work only with a certain number of the very best somnambulists and instead of ten hours preparation, we had better allow ten months. In other words, a neat little laboratory demonstration is one thing. Preparation for grim reality in the cloak and dagger club is something different. See if you can follow it.

In this case, or rather type of case, we will use hypnotism to induce multiple personality. Hypnotism is the means to an end, though the technique would be impossible did we not have hypnotism at our disposal. Perhaps we had better start by defending our position. Is it unethical? Perhaps, but science merely states the facts. If you choose to use those facts for destruction rather than for construction, the scientist is quite justified in saying that you are to blame. If we follow one line of reasoning, Einstein can be regarded as the greatest criminal of modern years. He wrote the basic formula for atomic fission, which made possible the atom

bomb. That line of reasoning is, of course, perfect nonsense. One of my closest friends is an authority on modern explosives, so is he a criminal?

Now let us return to our presentation. We start with an excellent subject, and he must be just that, one of those rare individuals who accepts and who carries through every suggestion without hesitation. In addition, we need a man or a woman who is highly intelligent and physically tough. Then we start to develop a case of multiple personality through the use of hypnotism. In his normal waking state, which we will call Personality A, or PA, this individual will become a rabid communist. He will join the party, follow the party line and make himself as objectionable as possible to the authorities. Note that he will be acting in good faith. He is a communist, or rather his PA is a communist and will behave as such.

Then we develop Personality B (PB), the secondary personality, the unconscious personality, if you wish, although this is somewhat of a contradiction in terms. This personality is rabidly American and anti-communist. It has all the information possessed by PA, the normal personality, whereas PA does not have this advantage. You will recognize this relation as similar to that which we had in Sally and the Angel from the famous Beauchamp case, also the clear-cut difference in ideals.

The proper training of a person for this role would be long and tedious, but once he was trained, you would have a super spy compared to which any creation in a mystery story is just plain weak.

My super spy plays his role as a communist in his waking state, aggressively, consistently, fearlessly. But his PB is a loyal American, and PB has all the memories of PA. As a loyal American, he will not hesitate to divulge those memories, and needless to say we will make sure he has the opportunity to do so when occasion demands. Here is how this technique would work.

Once again let us choose the imaginary aggressive Cubans as examples. In the event of war, but preferably well before the outbreak of war, we would start our organization. We could easily secure, say, one hundred excellent hypnotic subjects of Cuban stock, living in the United States, who spoke their language fluently, and then work on these subjects.

In hypnotism we would build up their loyalty to our country; but

out of hypnotism, in the "waking" or normal state, we would do the opposite, striving to convince them that they had a genuine grievance against this country and encouraging them to engage in fifth column activities. So we build up a case of dual personality.

They would, as we said before, be urged in the waking state to become fifth columnist enemies to the United States, but we would also point out to them in hypnotism that this was really a pose, that their real loyalty lay with this country, offering them protection and reward for their activities. Through them we would hope to be kept informed of the activities of their "friends," this information, of course, being obtained in the trance state. They would also be very useful as "plants" in concentration camps or in any other situation where it was suspected their services might be of use to our intelligence department.

Once again these people would have a great advantage over ordinary "informers." Convinced of their own innocence, they would play the fifth column role with the utmost sincerity, and, as mentioned before, this conviction of innocence would probably be their greatest protection. Again, if suspected, no one could obtain from them any useful information. Only a very few key people could throw them into the trance and, without this, any attempt to get information would be useless. Finally, we again point out that we are fully aware of the difficulties which would be encountered in building up such an organization. Hardly one somnambulist in, say, ten, or even one hundred, would be suitable for such work; and the determining of this suitability would be no easy task. But it *could* be done, and once accomplished would repay amply all the trouble.

A further extension of this same proposal would carry the war into the enemy's country, into Cuba in this case. These subjects would be admirable for "planting" in the enemy army with a view to obtaining information, or even for the ends of civilian sabotage.

We ask you to note another point which would not contribute to the peace of mind of enemy military intelligence. It is impossible to detect men who have been prepared for espionage work by this method. There is no test by which you can discover them. Blood pressure, heart rate, electroencephalograph, psychogalvanic reflex, all of these devices which we can use to pick up the most

subtle bodily changes are worthless for there are no bodily changes. Drugs reveal nothing, at least at the present moment.

This presents the military with all the makings of a very bad dream. For instance, suppose the enemy places one of these men in an American military intelligence organization numbering, let us say, one thousand. This man would, of course, be trained in reverse English, so to speak. In his normal waking condition, he would be a staunch American. His secondary personality would be that of an equally staunch communist, ready to disclose any secrets obtained by Personality A. He would be just about as dangerous an individual as anybody could imagine. Suppose that the chief of that organization had reason to believe such a person existed but did not know who he was. The search for the proverbial needle in the haystack would begin. The chief couldn't count on an American research hypnotist for much help. The super spy was made according to specifications by an equally able hypnotist on the other side. They both know their business, and they both know that the matter of detection is almost hopeless. The chief has only the methods used to locate an ordinary spy, and this man is as immune to those methods as a human being can be. In his waking state, he is a loyal American. The right hand, literally, does not know what the left hand is doing and no one would be more surprised than himself to discover that he was the blackest of spies. This one fact gives him great protection.

A trained investigator is extremely shrewd at detecting this matter of mental conflict in the usual person. He simply puts a suspect through what appears to be a matter of routine questioning. He says it is merely for the record but if you are guilty, if you are involved, you are almost certain to make some slip which arouses his suspicions. He takes his leave in courteous fashion but from then on the suspect is in real trouble if he is guilty, for the investigator has at his disposal the means to begin that endless process of check and scrutiny which will eventually reveal the truth. On the other hand, if the suspect is convinced of his own innocence, if he offers to co-operate in every possible way, welcomes an investigation into his past and present activities, the matter probably stops right there. The type of hypnotic subject I have described presents this conviction of innocence.

In psychology, we hear much about mental conflict. In hypnotism, we do everything possible to avoid this conflict, especially in the field of ethics. When multiple personality appears spontaneously—as we know it does—it is a device on the part of the mind to solve this matter of conflict. The personality splits, one part acting under one group of ethical ideals, the other governed by the conflicting group. Under this adroit arrangement, there is no conflict. Goethe said that he had the makings in himself of a gentleman and of a rogue. Many of us are in the same situation and at times the conflict can become quite acute. In a case of real multiple personality, the conflict is eliminated. The gentleman goes his way, the rogue goes his way, and both are quite happy with the arrangement.

So a synthetic hypnotic spy with a dual personality is extremely hard to detect. Then what can be done about it? See if you can follow this next move, one which we shall dub the countermining technique. There is a diversity of techniques which can be employed. In the one we are about to describe we need make no attempt to split the personality largely because there is no ethical conflict involved. Our subject is playing a straight hand, so to speak, although that hand is a little complicated.

We suspect the enemy is using these specially prepared super spies on us, there is not much we can do in the line of detection at this end, so we carry the war into the enemy's country. We countermine. We choose a good subject and then let him in on the plot. We disclose to him that he is an excellent hypnotic subject and we wish to use him for counterespionage. We suspect that in the near future someone is going to try hypnosis on him. He is to bluff, to co-operate to the very best of his ability, fake every test that is made and stay wide awake all the time. The test we fear most is that of an analgesia—insensitivity to pain. So we coach him carefully with posthypnotic suggestions to the effect that even when wide awake and bluffing he will be able to meet every test which may be made here, be it with ammonia under the nose, a needle, or, worst of all, the use of electricity, which can be made extremely painful and is easy to use.

Under these circumstances it will be virtually impossible to tell whether this man is bluffing or really in trance. We take a subject

so trained and allow another operator to try his hand. So the operator "hypnotizes" his victim and has him see the usual dog, produces anesthesia to pin pricks, and is very well satisfied with himself. Then he "awakens" the subject.

We say to the operator. "That chap is a very good subject."

"He certainly is."

"He couldn't have been fooling?"

"Not the least chance of it."

We turn to the subject. "What do you say?"

"I'm afraid I was. I remember everything perfectly. I was bluffing you."

The other operator now realizes he was "taken for a ride." So he returns to the attack. "Let's see you fool me *this* time."

He hypnotizes the subject, stretches him out between two chairs, sits on his chest and says triumphantly, "Now tell me he's fooling."

"That's right, I am." And the subject opens his eyes, dumps the operator on the floor and stands up.

"How in the world can I tell when you are hypnotized?" says the very puzzled hypnotist.

"You can't. I know every trick of the trade and can bluff you from now till doomsday." And he could have.

The writer knows of such a subject who was almost uncanny. Highly intelligent, he knew all the literature on hypnotism and knew exactly what was expected in every situation. At times the writer himself did not know what it was all about, whether the subject was bluffing or in genuine trance, for he could use autosuggestion quite as easily as the operator could use real hypnotism. He thoroughly enjoyed the whole game, and took especial delight in "playing possum." He would allow an operator to work with him for an hour under the absolute conviction that he was handling a high-grade subject, and never crack a smile during the whole performance.

Of course this was an excellent subject. Such a subject prepared for use as a super spy would be a nightmare to any intelligence department using hypnotism. The writer admits that he knows of no way to uncover the deception. Babinski, writing years ago, put his finger on this flaw. He declared there was no way to determine whether the subject was bluffing. With our modern tech-

niques we can be quite certain when an ordinary subject is genuine. We can apply a pain test which no one could stand outside the trance. But these specially prepared subjects are quite another matter. With posthypnotic suggestion they can be trained to meet very severe pain while quite "normal."

Under the conditions of warfare they would be a constant source of danger. The enemy, suspecting that we were using hypnotism, could "plant" a dozen or so subjects where he thought we would find them. He would then stand an excellent chance of getting the inside track of the whole organization.

The possible uses of hypnotism in warfare cover a very wide field. Let us consider a few of these.

There is always the possibility of sabotage, which, with the other cases we will now mention, does not require quite as elaborate a technique as that used with our super spy. We wish to blow up a munitions factory, so we pick on one especially good subject to turn the trick. We rehearse him very carefully, pointing out that he is really doing very important work for the Federal Bureau of Investigation and run him through a number of fake experiments. All these end harmlessly, and we pay him well for his co-operation. In this way we both assure ourselves that he is the subject we want and assure him there is nothing to fear.

We then put him to the crucial test. We explain that the authorities must see what would happen in a real situation. We tell him we are putting a bomb in his dinner pail timed to explode two hours after he enters the plant in question. There is nothing to fear, for while the bomb looks genuine from the outside we have replaced the explosive with a harmless compound. He is to enter the factory as usual the next day and behave quite normally, for the authorities will be watching his every move.

Then we place in the dinner pail a genuine bomb timed to explode one half hour after he enters the plant. Would we succeed? An open question, but the writer, for one, would certainly not enter that plant on the morning in question if he could possibly avoid it. He will not say he is certain the trick would work; but he feels there is a very good chance of its success. And in this particular case there would be no one to question after the disaster.

We have outlined a few obvious possible uses of hypnotism in

warfare which would occur to anyone familiar with that branch of psychology. We are not giving away military secrets any more than is a chemist who discourses on the use of gas or a physicist who talks on atom fission. There are certain broad principles, well known to everyone familiar with the fields of chemistry, physics or psychology. Certain highly technical devices, however, are known only to the expert and to disclose these would be treason and punishable as such. We are merely stating the obvious, though in a field with which the average reader is much less familiar than he is with those of chemistry or physics.

We might expand almost indefinitely on the suggestions we have already made. During the First World War, one leading authority on hypnotism offered to take a German submarine, piloted by a German commander under hypnosis, through the German mine-fields and attack the German fleet. Whether he succeeded or not, his chance of returning was about zero; so we must at least credit him with the courage of his convictions.

Then there is the question of obtaining information from prisoners of war. Will the subject "talk" in hypnotism? We are in ignorance on this point but the weight of evidence in the writer's opinion leans very definitely to "yes."

Let us see how we would proceed. There are always plenty of prisoners in modern warfare, with a good percentage in hospitals. So we begin at the hospital as the logical point of contact. The operator, in the role of a doctor, chooses his battleground. Next he explains to the patients he has selected that he wishes to try on them the effect of relaxation. This sounds reasonable enough, especially in view of the fact that many of them would be in a highly agitated state, many would be "shell shock" cases. These, by the way, make excellent hypnotic subjects.

So the doctor proceeds to show these patients how to relax, which is merely the disguised technique of hypnotism we have already described. In most cases he will not get the deep hypnotic trance of somnambulism, but neither will the patient realize the real end of the experiment. With at least one in five—probably more in these hospital cases—he will induce hypnotism. Then it is a simple matter to isolate this patient in a separate room and see what information can be obtained. First the hypnotist would re-

move from him all knowledge of ever having been hypnotized and make it impossible for anyone else to throw him into a trance without the operator's consent.

Now as to precodure. Someone has said there are two ways to kill a cat. One is to mess him all up with a club; the other is to persuade him that chloroform is good for fleas. The reader need not think that the next move would be to use "strong arm" methods, to apply the third degree. Not necessarily. We would need just as skillful questioning as that used by the F. B. I. and would have to try various devices on these prisoners—for we would work with more than one.

For example, we might call the prisoner before a group of "enemy officers," consisting of our own men dressed as such and speaking his language. These would explain to him that they were very anxious to get information about conditions at the front and promise him promotion for his co-operation.

Or again, and probably more effective, we might work to undermine his morale. We would point out to him in hypnotism how badly he had been treated by his own army. A man of his abilities should obviously have a higher rank than he holds. And besides that, his government was not treating his family as it should. Now if he would just come over on our side of the war we would promise him promotion and recognition.

The reader is asked to remember that, in hypnotism, the individual is highly suggestible. There is a belief held by some that he will do nothing in the trance that he will not do in the "waking" state. This is sheer nonsense. The writer has seen more than one stage performance wherein respected members of the community have made fools of themselves in public, an exhibition they would almost certainly never give if normal. On at least three occasions these subjects have later tried to "beat up" the hypnotist for his part in the affair. It is simply a question of degree. We also have cases in the records of hypnotism wherein subjects have given fraternity secrets or talked of very private love affairs.

A great deal also depends on operator-attitude. If the subject suspects that the operator doubts his success or expects the experiment to be a failure, it will fail. But if the operator is himself convinced he will succeed, then he will succeed, at least in some

cases. We must bear in mind that success need not be expected every time. If the hypnotist isolated twelve good subjects in one day, and if only two of these would "talk" freely, his efforts would have been amply repaid. We do not for one moment claim that hypnotism is a sure fire method of getting information from prisoners of war. We simply claim that *with certain subjects* it will be highly successful. The weight of evidence points in this direction.

There is also the possibility of spreading false information. This would not be as useful as the first proposal but it would have its place in the military setup. For example, we take a prisoner-of-war subject and say to him. "Yesterday afternoon you were at Such-and-such Airfield. You saw there were three antiaircraft batteries. Here is a map of the field and here are the exact locations of these batteries. You will remember this very clearly after you wake up. Moreover, you will take the first opportunity to escape and give this news to your friends." Then we awaken him and make sure that he has every possible opportunity to escape. We even help him on his way.

This, of course, is only a trifling example for the purposes of illustration. But in actual warfare it might easily lead to an enemy disaster. Suppose we hypnotize a captured officer of high rank. We show him a map of our front, pointing out to him that the weak point is between the cities of Utica and Syracuse. We have just withdrawn four divisions to reinforce the line further south. A heavy attack here may break the entire line. Then we take care he is allowed to escape with this information. If the trick worked it might easily turn the tide of a whole campaign.

Again we do not say it will work in all cases. Nothing so foolish. Again we say that, in our opinion, it will work *with some subjects* and that such subjects can be picked out and trained very carefully before the crucial test is made. This idea that we hypnotize Colonel Smith today then expect him to win the war for us tomorrow is folly. We might have to test, train and work with him for six months. Then he might be a very important aid in winning the war. And we are not talking about one prisoner but many of them.

The writer admits that no one knows the effectiveness of these proposals. No satisfactory experiments have yet been done on the subject. As we have said, M. H. Erickson has done excellent work

proving to his satisfaction that such uses of hypnotism would be quite impossible. But W. R. Wells and L. W. Rowland have done excellent work proving just the opposite. So we may cancel them out with a strong scientific presumption that in certain cases, at least, it *is* possible. It seems to the writer that this conflict in results is largely due to operator-attitude, a fact, largely overlooked up to now, which has a strongly clouding effect on many experiments. *So if any brother psychologist should make the dogmatic statement that the uses we here propose for hypnotism are quite impossible, we are quite justified in saying that, as a scientist, he also is quite impossible.* We must admit that no one knows, or will admit he knows, the answer, but we at least contend that the weight of evidence is in our favor. That leaves the subject wide open.

Then we have a further possible use for hypnotism in warfare. We have all heard of the difficulty of transmitting information without interception. Codes are excellent, but we have highly-trained men in our intelligence department who are also excellent in breaking down these codes. If one expert can build up a code, another can break it down and find the meaning, given a few hours and adequate help. Then, again, a code must be printed somewhere and in warfare the enemy will pay good cash to get his hands on the printed page. Code books vanish no matter how carefully guarded, for the "international spy" of movie fame is a very real and a very clever person when the reward is big enough.

Of course we can always send documents by messenger. That also has its headaches. War is grim and life is cheap. If the enemy knows where these documents are, he will stop at nothing, neither robbery nor murder, in order to get them. And human nature is weak. The nightmare of any intelligence service is a big, glowing double cross. Someone described an honest politician as one who would stay bought, and spies have a very bad reputation along these lines. We have had some pretty ghastly examples of that in the last war.

With hypnotism we can be sure of our private messenger. We hypnotize our man in, say, Washington. In hypnotism we give him the message. That message, may we add, can be both long and intricate. An intelligent individual can memorize a whole book if necessary. Then we start him out for Australia by plane with the

instructions that no one can hypnotize him under any circumstances except Colonel Brown in Melbourne. By this device we overcome two difficulties. It is useless to intercept this messenger. He has no documents and no amount of "third degreeing" can extract the information, for the information is not in the conscious mind to extract. We could also make him insensitive to pain so that even the third degree would be useless.

Also, with this hypnotic messenger we need have no worry about the double cross. In hypnotism we could build up his loyalty to the point where this would be unthinkable. Besides, he has nothing to tell. Consciously he has no idea of what he is doing. He is just a civilian with a business appointment in Australia, nothing more. He will give no information, for he has none to give. By this device we could make it much safer to send information when and where the private messenger could be used.

We hear a great deal about brainwashing these days, and we run into a most confused picture. Those famous Russian purges of a few years back, with the confessions of the accused before the court, the trial of Cardinal Mindszenty, the experiences of our own prisoners in Korea—what has all this to do with hypnotism? Possibly far more than the average American would guess.

Let us look at it this way. Professor Clark Hull of Yale, who was one of the greatest of American psychologists, linked hypnotism closely to the so-called conditioned reflex. Pavlov, the Russian, was, of course, the world's greatest authority on this unique device. Russian psychology of the present day follows Pavlov in a slavish imitation, which we in the western world simply cannot understand. Call this brainwashing technique a form of hypnotism, of a conditioned reflex, of reflexology: the terms don't matter. Clark Hull, were he alive, would say that we were simply using different terms for the same thing.

This whole subject of brainwashing, including those fantastic confessions at the Russian trials and from our own men in Korea, also the equally fantastic conversions of our men to the communist cause, is a fascinating study in and of itself. We have definite ideas as to how these ends are attained and undoubtedly could do just as well in this matter of brainwashing as our communist friends, if we so wished.

Our interest here lies in the protection of our own men against this brainwashing technique. We must face reality. It is obviously impossible to hypnotize every man in the armed forces of the United States. So let us concentrate on one special group, the pilots of the Air Force. Again, impossible and impractical to hypnotize every man in this group. However, the fact remains that a certain proportion of them would be excellent hypnotic subjects. The same applies to every other branch of the service, and in all these branches there are certain assignments where the danger of capture is great, where the individual does have information which would be of great value to the enemy and where this individual would probably be a special target for brainwashing.

For such assignments, we could, as far as possible, select men who were good hypnotic subjects and who had been specially prepared to meet this danger. The number of such men would necessarily be limited. They would be used for special assignments, but such men so prepared would be made completely immune to this so-called brainwashing technique. Methods of preparation would vary with the specific individual and with the specific assignment involved.

We should also bear in mind the matter of motivation, a subject with which we will deal more fully in the next chapter. Hypnotism has a startling capacity to step up motivation in the human being, to step up his motor, his driving power. In many cases, the human being is a failure because like Don Quixote he jumps on his horse and rides off madly in all directions at the same time. He does not channel his energy. With hypnotism, we can set up what we term a monomotivational field, wherein the energies of the individual are firmly pointed in one certain direction, with the exclusion of side issues and distractions.

This increase in motivation can apply to long range objectives such as the educational or occupational aims of the individual or can apply to very short range objectives such as a basketball game tonight. In either case, we get a much more efficient individual and in the case of short range objectives, an individual who follows through with a savage energy which is almost unbelievable.

The reader can easily visualize military situations where motivation is extremely important. Many of these will call for increased

motivation over a long period of time where the individual settles down on a long-term program and follows it through with energy and determination. The more dramatic instances will, of course, be those short-term assignments wherein the individual converts himself into a dynamo of energy with a single-track mind for a period of a few hours or a few days.

CHAPTER X

# *Hypnotism and Human Affairs*

In this chapter we will direct your attention to some fields of everyday experience wherein hypnotism may have considerable significance. We choose a limited number of these fields for purposes of illustration. The reader is asked to note that very little indeed has been written on the subject of the possible application of hypnotism to human affairs. Much excellent work has been done with hypnotism in medicine. A number of persons, including the writer, have devoted considerable time to the study of hypnotism in crime, hypnotism in warfare.

But most of us are not sick, or potential criminals, or in military service. What has hypnotism to offer on the problem of ordinary people in everyday life?

## *Politics*

Let us look at the field of politics. There are times when we ordinary folk almost give up in hopeless despair. Barrages of oratory come rolling in over TV, each side accusing the other of just about every crime in the calendar, to exaggerate somewhat. How can we make up our minds before we cast our ballots? So we need to seek understanding.

If we could only obtain some insight as to the rules which govern the game, it might save us considerable confusion, might even avert catastrophe. For in politics we deal with national, even world, problems, and those problems can have very serious implications. Our interest here centers on the psychology of leadership, especially on that type of leadership which somebody has called "leadership to danger." We refer to the mob leader, to the dictator.

## *The Dictator*

Please understand that we do not place our own political leaders in this category. Far from it. But here and there, even in America,

we will have an isolated example where the rabble rouser can become a dangerous figure. We shall examine this type of individual closely. Strange to say, hypnotism throws a great deal of light on his special personality make-up. And, incidentally, we can learn much about the psychology of ordinary healthy leadership by examining the character of those leaders who do not fall in this category.

For the purpose of clarity, we will again, and for the last time in this book, remind the reader of the basic points in hypnotism. Hypnotism as we know it is an example of direct or prestige suggestion. This, we maintain, is based on emotion. You are much more suggestible when your emotions are aroused, when you are really angry or really afraid. It is a question of brain sensitization. The mob leader, the rabble rouser, the dictator, is essentially a top-flight hypnotist. His show may not be quite as spectacular as that of the stage hypnotist, but his actual results in terms of human problems make those of our stage friend look very childish. We will take a typical dictator and compare his technique step by step with that of the hypnotist. This will give us insight into how his mind works and that insight may some day be very helpful to us in our own thinking.

Let us for the next few pages imagine ourselves back in the days of the Second World War. Many will recall the emotional setting of that period as a direct personal experience. To others, the younger generation, it will be a matter of history, but very recent history. We can best illustrate our immediate line of thought by focusing on one individual in one historical setting familiar to all of us, either by direct experience or personal account.

Let us take the case of Hitler. How did he arrive at power and how did he maintain himself in power? We are talking in terms of mob psychology, and this field has been given a great deal of thought by psychologists. There are six essential points in the psychology of the mob and hence important to the leader of that mob. The mob leader may not have analyzed the situation as would the psychologist, but he will instinctively use this pattern for the simple reason that it works and his evil genius tells him that it will work.

He will strive for a restriction of the field of consciousness among

the members of his mob. He will try to establish a monomotivational field, as we say in psychology. In plain English, he will strive to develop in that mob a single-track mind. *His* ideas, and *his* ideas only, are to be considered by the mob. This he does by means of a controlled press, a controlled radio, a controlled television. His followers hear only one line of thought, *his* line of thought. He is interested, as we say, in the ideas that stay put and he takes care that those ideas are few, simple and that no one is allowed to question them. In Germany, during the Second World War, it was a brave man indeed who dared to express ideas contrary to Hitler's theme song. It takes just as brave a man to dare go against the party line in communist countries at the present day. If you are caught listening to radio broadcasts other than those approved by the central authority, you have bought yourself a one-way ticket to a concentration camp. At least this has been true until very recently, and at the time of writing we cannot yet foretell what the mass resistance of the fall and winter of 1956 will achieve.

Note, also, that this restriction of the field of consciousness is the first concern of the hypnotist. In fact, one theory of hypnotism explains it entirely in terms of this restriction. The operator strives for a condition wherein the subject hears just one voice, can listen to just one voice. We term it "rapport." Other people present at the séance may make all sorts of suggestions, give all sorts of orders. The subject ignores them but immediately responds to the slightest suggestion given by the hypnotist.

Then, the dictator will appeal to the emotions. Reason is his worst enemy and he takes great care that the enemy in question is eliminated. Moreover, he will appeal to the baser emotions, fear, anger, hatred. In the case of Hitler, it was hatred of the Jews, the French, the Russians, hatred of all democracies.

The sheer power of fear can be very great. Before the last war, one of the best known German psychologists published a work showing that Nordic hens were superior to Mediterranean hens. This work was the purest trash so far as science is concerned but it was terribly potent when fed to an inflamed people. It gives us a startling example of what the power of fear can do even to the scientific mind. The psychologist in question had no delusions as to the weakness of his case—and no delusions as to his own fate

should he refuse to obey orders. It was simply a case of "play ball—or else." While we may have condemned this attitude from a safe seat in a democratic country, it is well to remember that we could take an academic view of things while he was faced with a grim reality.

Now, hypnotism also has this emotional basis, although the appeal is not to the baser emotions. Furthermore, we can arouse emotion very easily in an hypnotic subject. The writer doubts that even a Hitler could produce the savage anger he obtained in some of his hypnotic subjects purely as a result of direct suggestion. But it can be done very convincingly with the posthypnotic suggestion. We once took a subject, a violent anti-Nazi, and suggested to him that Jones of the group belonged to the Bund. However, we also pointed out that Jones was having tea with us and that the subject must behave like a gentleman.

This he did within very broad limits. He was coldly discourteous, taking every possible opportunity to cast slurs at the Nazis. He was obviously spoiling for a fight, but he kept himself within bounds until the party broke up. Then, he was quite determined that he was going Jones's way, whichever way that might be. At this point, we removed the delusion and had Jones leave. For all that, the subject still had a hangover and left the house breathing fury against everything that was not one hundred per cent American.

The mob leader will count on emotional contagion, an extremely important factor in all mob situations. Emotions are far more contagious than the measles. We humans tend to fit into the emotional pattern of a group. If we hear roars of laughter coming from a room, we enter that room prepared to laugh. If, from the sounds we hear, there is obviously a hot argument going on and people are angry, our blood pressure goes up as we open the door, and we are ready to take part in the quarrel. But if there should be a religious service going on in that room, our emotions behave themselves accordingly.

This fact of emotional contagion was very important to Hitler. He could set the stage with his controlled radio, his controlled press, whip up the emotions of his people in a few inflammatory speeches and newspaper articles and could then depend upon

nature's taking its course, so to speak. The effectiveness with which nature did take its course is all too evident as we look back at those days of the Second World War.

With hypnotism, we can whip up emotional contagion just as effectively as any dictator. In laboratory hypnotism, it may involve only one or two individuals, but it serves to illustrate a point. The writer saw one instance where this had sad results for one of the spectators. An hypnotist in the Army was giving a very good demonstration before a group of officers. His hypnotic subject, a sergeant, was a powerfully built chap with a perpetual grouch. This sergeant was allergic to a certain Major X, so the hypnotist, to add a touch of comedy, selected one of the group, a lowly second lieutenant, and whispered in the subject's ear that he was this Major X and that he, the hypnotist, very definitely did not like him.

The result was dramatic if not comic. The sergeant stepped up to the lieutenant and let loose a barrage of profanity which caused even the hard-boiled Canadian officers to gasp. Moreover, the aggrieved sergeant showed every intention of following the verbal attack with assault and battery before the hypnotist again had the situation under control.

Then, we have the matter of social sanction. The individual feels justified in any action approved by the mob and its leaders. It seems difficult for the normal individual to understand how any person could approve of and even take part in the atrocities of a Hitler. But when we are familiar with the psychology of the mob, we know that the abnormal can become normal, so to speak. Let us illustrate.

The writer was visiting a small American town in the north one New Year's Eve. Everything seemed quite normal. Then at the head of Main Street the crowd became rough. Perhaps the police were not as tactful as they might have been, but the causes are all very obscure. The crowd started breaking windows. The police interfered and the fat was in the fire. The mob thoroughly beat up two policemen and raged through half a mile of that town, smashing and looting according to the very best mob traditions. It took a detachment of troops to get the situation in hand. The next morning the town, the authorities and the mob members were completely puzzled as to what had really occurred. This is an excellent

example of social sanction. You were in the mob, the mob was breaking windows and looting; therefore, you were quite justified in doing the same.

In another city, the writer was present when a lynching occurred. It was the usual story of a white woman insulted by a Negro. The crowd went wild, wrecked the Negro quarter and finally hanged the culprit to a lamp post. Unfortunately, the victim was not the real culprit, as later investigation showed, but a man who could not possibly have been associated with the crime in question. But the mob had its way, and the man was dead, as might have been anyone, white or black, who interfered with that group at the height of its fury.

It is a little difficult to illustrate social sanction from the practice of hypnotism because there is no society present. The society in question consists of the hypnotist. He sanctions or he disapproves. However, within these limits, social sanction is very obvious. Whatever the hypnotist says, goes. It is the voice of society and the subject will carry out the suggestions, within those limits which we have already outlined.

Again, in the mob or under the dictator, we get that curious feeling of omnipotence—the "I'm right, you're wrong" reaction, which we see in the fanatic. It never occurred to the Nazi, it does not occur to the communist, that there are two sides to an argument. Or rather, there are, indeed, two sides to any argument: his side and the one that's wrong. If you are living under a dictator, you are perfectly free . . . to do as you're told.

If this type of freedom does not appeal to you, then you are perfectly free to say so . . . and take the consequences. You will be a very brave man to choose the latter alternative.

We can get exactly the same sort of thing in hypnotism. The operator, using the influence of the posthypnotic suggestion properly worded, can produce as narrow-minded and unreasonable a fanatic as a Nazi or a communist could ever hope to be.

Some of these cases from hypnotism have their humorous side. The writer was illustrating this point with a subject, many years back in England. He told the subject that on awakening he would be under the delusion that he was God and would act accordingly. The subject was highly intelligent. There was present a don, or

professor, of the college who was equally intelligent. When the subject was awakened, the don attacked him from an unusual angle.

"Listen, God," he said, "I am not questioning for one moment that you are God. I take that for granted. Would you be good enough to help me on a matter which has been giving me considerable trouble? Would you give me your reactions to the question of the Immaculate Conception?"

This approach puzzled God, but only for a brief period. He thought for a moment, then he came back with the perfect answer, "God never talks shop."

Finally, we come to the mob actions of this picture. We refer to this as the removal of inhibitions. Anything goes if the party sanctions such activity. The stories of torture, of organized sadism, of gas chambers, that we received from the Nazi concentration camps were simply impossible but they happened to be true. As one writer put it, we humans can become "angry apes committing before high heaven such sins as make the angels weep." The ape is always there. Remove the inhibitions, give him the green light, so to speak, and you may stand aghast at what happens.

Hypnotism also illustrates this removal of inhibitions. Our examples may not be quite as ghastly as the type we have mentioned, but the potential is there.

The writer once hypnotized a soldier and had a fine example of this removal of inhibition. This chap was a steady, reliable man who did his duty and gave no excuse for complaint. He was in deep trance and the writer said, "Now, Mac, you're in good hands and no one cares what happens. Is there anything you would like to do?"

"There certainly is," said Mac, and he started swearing. He damned everything in the army from the general to the lowest private. Then, he started on the Germans and gave them his undivided profane attention for fifteen minutes. Next, he devoted his attention to the "slackers" at home, inventing several names for them which were new even to an army man. Suddenly he stopped.

"Thanks, I feel better."

"How about waking up?"

"Good idea, snap me out of it."

Once awake, he was obviously relieved by this terrific outburst. "You know," he said, "I never felt so well since this war started. Let's try it again sometime."

The reader will see the close resemblance between the technique of the hypnotist and the devices used by the dictator, the mob leader. Some authorities would object to our saying that the dictator is really a hypnotist. They would prefer to reserve the word "hypnotism" for a specialized technique. They would admit, however, that the secret of success both in hypnotism and in mob leadership is the use of direct or prestige suggestion acting on a brain sensitized through emotion. They would protest against our using the word "hypnotism" to cover the phenomena of mob psychology, yet they would admit that a knowledge of hypnotism tells us just about all there is to know concerning mob psychology.

This being so, the implications are pretty obvious. In a democracy, we elect by the popular vote. As somebody said, the first problem of a politician is like that of a jockey, to stay in the saddle. You and the other voters of this country make the choice of our political leaders. If you make the wrong choice at some future date, it may be your last choice. From then on, you will be perfectly free to vote . . . the party line.

How can we guarantee that our choice at the polls will be a wise one? Our previous discussion of hypnotism and mob psychology should help. Is this man you listened to on TV last night a genuine leader or is he a rabble rouser? Is he heading a battle of democratic principles or "a battle of the gravy bowl"? We may safely say that, in America, we have the world's most intelligent electorate and that, on the whole, our politicians are a superior group, so we are not crying panic. On the other hand, as we have said, "when you stop being better, you stop being good," and on this matter of electing a potential dictator, you will make that mistake once only. From then on, he will take care that your mistakes are always in his favor.

So play a little game with yourself. Sit down and think over that last spellbinder you heard on the platform, over the radio or on television. Behind every argument is someone's ignorance. You probably are either for him or against him. Why?

Was he appealing largely to your reason or was his appeal

largely to your emotions?—especially on such matters as class privilege, the race issue, religious issues. These matters can be handled along the lines of reason, but the temptation to go over to the highly emotional appeal is very marked. In other words, were you listening to a man of reason or to a hypnotist who aimed to limit your field of consciousness? You say you cannot be hypnotized against your will. Perhaps you were hypnotized last night as you listened to that political address over your TV. It might be well to give a little thought to this matter. Don't worry about the hypnotist in his laboratory. You will probably never meet him. The most dangerous hypnotist may be the man you listened to last week over the radio. You were his subject. His appeal was emotional, inflammatory, an excellent example of prestige suggestion. You came away determined that something drastic should be done on, shall we say, the racial issue. As a matter of fact, you were a very excellent subject. Think it over.

And think about the nature of that kind of hypnotist. He may be, he often is, a man of great intelligence. You may have your own opinions about Hitler, Mussolini or Napoleon, but no one ever accused them of being morons. They could and did use the brains they had with great effect. Their outlook was purely selfish. They used their intelligence to further their own ends. But Hitler was excellent within these narrow limits.

Such men possess an uncanny drive, a restless energy, as they push forward toward their own self-centered ideal, and they will be utterly ruthless in attaining their ends. The rights of others, even the lives of others, are simply of no consequence if they stand between the dictator and his determined goal.

Then note another very important point. The dictator may be, generally is, a man of great personal courage. He plays along grimly till the last throw of the dice and meets his fate with his chin up. This may be because he is perfectly sincere. This sounds like a strange contradiction, but we must accept it. The dictator really believes that he is God's chosen instrument—or society's chosen instrument, if he does not believe in God—to lead his group, or possibly the entire world, into the promised land. The resulting picture is not pleasant and the individual who creates that picture is easily the most dangerous of all the mentally maladjusted. He

has intelligence, conviction, drive, courage, and will be utterly unscrupulous—a combination which calls for serious concern.

For the rest of this chapter we will discuss hypnotism as straight hypnotism. The reader may have been a little annoyed over our varying terminology. We not only talked of hypnotism but also of suggestibility, brain sensitization and other such concepts, and that has been necessary. Now, let us talk of straight hypnotism in its application to some phases of everyday human affairs.

### *Education*

The writer will discuss only higher education since this is the field with which is he familiar. Our system of higher education in America is extremely complex compared with that in any other country. For example, we have 1300 institutions at the college level or above that level. In Europe, less than five per cent of college-age youth attend college. In America, it is more than twenty-five per cent. In Europe, the vast majority of institutions for higher education are controlled by the state. In America, the majority are not state-controlled. In Europe, the picture tends to be much more simple as to opportunity and to type of institution. In America, we have a bewildering array of all types of colleges doing all types of things. This American system of education can lead much more easily to mental trouble and mental maladjustment than the European system.

Let us take education in a dictatorship as one extreme against which to contrast our own system. Under the dictator, you are, as we have put it, "completely free . . . to do as you're told." The state decides in the matter of education. You will or you will not go to college. You will study engineering, economics or pure science as the state decides. If the decision fits in with your own wishes, that is fine. If it doesn't, there is just nothing you can do about it. You must follow a certain line of action, and there is little if any possibility that you can deviate from this line. So you need not concern yourself with choice.

And, it must be admitted, many possibilities of choice can cause much mental maladjustment to many students. A prospective college student has to make up his own mind among many alternatives as to type of college and type of curriculum. Moreover, he

generally has to make this decision without adequate knowledge or advice. As a result, he may enter college and leave college a rather confused individual. The great majority of college students who "flunk out" do not leave college because of a lack of mental ability or intelligence. They would not have been admitted in the first place if they lacked the ability in question.

Then why are they forced to withdraw from college? For two main reasons. In the first place, they cannot channel their ability along the lines required by the college. There are just too many things to do, too many inviting possibilities in the new liberty they attain when they enter college. Like Don Quixote, mentioned previously, they jump on their horses and ride off madly in all directions at the same time. This can be very bad for their grades. Then, in the second place, they do not have the motivation, the drive to succeed, even if they can make up their minds and restrict their activities within the proper channels.

These two matters of establishing what we call in psychology a monomotivational field, a concentrated line of attack, and of increasing motivation—increasing interest, if you will—can be handled very successfully by means of hypnotism. The writer quotes a case in Chapter I, the case of his botanical illustrator, which demonstrates these two points.

Let us throw in a word of warning. This is a field for the expert, not the amateur. It may be that a serious mental illness causes this inability to adjust in the college situation. The case is one for the psychiatrist. We may not need the rather lengthy and tedious hypno-analytic technique which we described in the case mentioned. Probably, in the great majority of cases, we can attack such problems as these by the direct use of hypnotic suggestion. This is simple, quick and effective when it works, but the expert should be the one to decide on the line of attack.

For example, after the Second World War, there were many cases of maladjustment among the returning veterans who came back to college to finish their college education. One of these men, married and with a young baby, simply could not pull himself together after three years' excitement as an aviator. All his interest pointed to a career in business. He was majoring in economics, and he knew that his first duty was to graduate from college with

respectable grades. But college was a terrible letdown after the Air Force. He was drinking too much and had every prospect of leaving college, and not with an honorable discharge. His wife, his father and the writer cooked up a little plot and went to work on him.

He never knew what hit him. He developed such an intense interest in economics that serious drinking was out of the question. He left college with his degree and has since done very well in the field of business. This was one of those cases where you feel that strong-arm methods are justified. You treat the subject like a man and more or less read the riot act in hypnotism. Moreover, in cases of this kind, it works.

S. Glasner of Baltimore in a recent article points out the fact that we have not even scratched the surface on this matter of hypnotism in education.

### *Vocational Guidance*

The writer here discusses a subject with which he is quite familiar, for he is, among other things, Director of Placement at his university. Here again, our American culture stands in rather sharp contrast with cultures in other countries. We offer a very wide range of opportunities to boys and girls leaving college. This also applies to the level of the high school. It is this diversity of choice which makes the matter of guidance and placement in our American society so much more complex than in other countries. By the same token, the uncertainty resulting from this situation can at times cause rather severe confusion to the student.

Note a peculiar fact. In America, three quarters of the college graduates go into some form of business and make their own free choice as to the business which they will enter. In Europe, as a whole, not more than one quarter of the college graduates would enter business, and in the communist countries those who do enter business would certainly not go in under their own free choice. They are, literally, assigned. Yet this matter of choice can cause difficulties. As we illustrated in Chapter I, there are many cases wherein such a choice can be made properly only after extensive counseling. The writer points out that hypno-analysis can be very useful in this sphere. It can be even more useful in those cases

where we have definite vocational maladjustment, where the individual is in the wrong groove, knows he is in the wrong groove and is actively seeking assistance. J. M. Schneck and M. V. Kline in recent articles write very well to this point. They have been successful with some such cases.

But let us face reality. The vast majority of college graduates will never be put through an extensive course in the vocational application of hypnotism. It is tedious, expensive and there are all too few men in the United States qualified to handle such a method of treatment.

It would seem that the use of hypnotism in this matter of counseling and placement would lie largely in the field of motivation, of building up interest in a certain choice which the subject arrives at voluntarily. This, shall we say, is at least the picture for the foreseeable future. In view of the progress being made in all fields of hypnotism, this picture may be entirely wrong five years from today. We can use our counseling and guidance techniques to arrive at what appears to be a sane answer for the individual's problems. Then in certain cases where the individual is, shall we say, weak, where he lacks drive, lacks the ability to channel his efforts, it would seem that the use of direct suggestion in hypnotism might be highly effective as in the cases in Chapter I.

We have not yet scratched the surface either in this field or in the field of the educational application of hypnotism. Public prejudice has placed a very strong limit on our activities. Furthermore, we simply do not yet know our way around in these two fields. For our most competent operators, the psychiatrists, are far too busy with mental disease to spend much time outside it. Now and then there is someone, such as Schneck or Glasner, who is willing to give the matter a certain amount of consideration. The fact remains that this group is in a very small minority.

While the writer was an undergraduate in college, his main interest already lay in the field of abnormal psychology with a definite side interest in this matter of counseling and guidance. This was immediately after the First World War. The writer knew a student who was interested in the field of business, but his only qualification at that time, if it could be considered a qualification, seemed to be a wonderful capacity for getting himself into trouble

and then getting himself out of trouble. His abilities in these fields closely approached the rank of genius.

The writer used direct hypnosis with special emphasis on the channeling of interests along one line and the development of high motivation, high drive. The writer can say that the experiment was eminently successful as judged by this man's record over the past forty years.

### *Delinquency*

First let us get this picture in focus, so to speak. We have fairly accurate figures on delinquency going back for 100 years. We Americans tend to become almost hysterical over certain issues. The country is seen as going to the dogs, and modern youth leaves much to be desired. Actually, if you look up the figures, you will find that the amount of juvenile delinquency 100 years ago was just about what it is today. This in a period when they had no television, no movies, no radio, no comics. There is no one known cause for delinquency. Various factors add up to the total picture. Perhaps, as someone said, one of the best ways to curb delinquency is to keep the parents off the streets nights. Whatever be the cause and whatever be the cure, let us not become overexcited on the matter. Yet the fact that the situation is pretty much as it was 100 years ago does not justify our ignoring the matter. Any constructive, sane move which will lessen its frequency would be welcomed.

Note another very important point. When we are faced with a case of delinquency, we may be dealing with genuine mental disease. We are not suggesting that this is true of all cases in the realm of delinquency. But the fact remains that we would expect to encounter far more real mental trouble than in the problems of education or of guidance and counseling. We should at least be alerted to this situation and realize that we may be dealing with a problem which lies in the field of the psychiatrist or perhaps the clinical psychologist. The following comments apply when no actual mental disease is found.

Children are notoriously easy to hypnotize, which gives a definite advantage in the use of this approach. Moreover, these repressed complexes, these posthypnotic suggestions on which the

delinquency may depend, have not as yet had time to consolidate themselves as they have in the case of the adult. This is a second very helpful point.

Then we have youth in our favor when we use direct suggestion in the hypnotic state to strengthen the personality, instill new interests, and give proper motivation. The tree grows as the twig is bent, and we are dealing with an individual in his formative years.

Actually, very little has been done with hypnotism in the field of juvenile delinquency. This is probably due to popular prejudice against its use even for such a worthy end and also because of the fact that we have too few competent hypnotists who are willing to spend their time on the problem. Yet in the opinion of the writer, this is one of the most fruitful and profitable fields for investigation. G. J. Ambrose in England is helpful along these lines.

Sometimes we astonish ourselves with our own success. The writer will cite a somewhat humorous case which illustrates the fact that you can use the wrong technique and still get astonishingly good results. This case applies to a delinquent adult, not a juvenile.

Some ten years back, the writer had a visitor—a rather unwelcome visitor. This individual, about thirty years old, had a twofold problem. In the first place, he drank far too much, was a dipsomaniac as it is called. Secondly, when he got drunk he invariably got into a fight. Naturally the police also got in on the performance, and he spent a considerable part of his time in jail. His idea was that the writer would hypnotize and reform him in one bold move.

The writer makes it a point not to attempt hypnotherapy. It is not in his line so he tried to side-step it. He referred the individual, whom we will call Maxwell, to competent psychiatrists who could handle the problem. This was brushed aside. Maxwell was going to be hypnotized by the writer and would not take a refusal.

So we saw the matter through, more or less going through the motions, with no special interest either in the case or in Maxwell. He proved to be a reasonably good subject and we attacked the problem by direct suggestion in the hypnotic state, a technique which leaves much to be desired. Then the writer refused a fee and saw the last of him, he hoped.

Three years later in the Hotel Syracuse, he was accosted by a

man whom he did not recognize; well dressed, obviously successful, he was attending a business convention.

He introduced himself. "Remember me? I'm Maxwell. You hypnotized me three years ago because I was a drinker and what's worse I got into fights when I was drunk. Now I'm really worried."

"Well, what's the worry about this time?"

"You see it's this way. Since the time you hypnotized me, I haven't touched a drink. What's more, I haven't punched anybody in the nose for three years. Now, is that normal?"

"Well, that's the general idea we had in the back of our mind, wasn't it?"

The writer told this story to a competent psychiatrist who merely glared at him. "Fellows like you have no right to practice hypnotherapy," he growled. The writer agrees.

### *Reincarnation—(Bridie Murphy)*

We introduce this subject of reincarnation because of the recent public interest in this matter as seen in the case of Bridie Murphy. A great deal has been written on the subject both in books and in various journals. Practically all these articles have been contributed by psychiatrists and their comments have been excellent but naturally their remarks have been based on their own experiences and their own interests.

The comments that follow are by one whose main interest has always been the military application of hypnotism, which has a relationship to the antisocial use of hypnotism. Suppose the writer had wished to build up evidence for reincarnation—how would he have done it? He submits two possible cases, one obviously weak in that his little fraud could have been easily exposed. The second illustration, while clearly a hoax, would have been very difficult indeed to expose. Please understand that the writer in no way insinuates that Mr. Bernstein, the author of *The Case of Bridie Murphy*, was in any way fraudulent. The writer merely points out that a case could have been built up along the lines which he suggests.

Let us build our first case around Jenkins, a former marine. He finishes the war and returns to Boston. Now, ten years later, he is foreman in an industrial plant. Then we suddenly decide that we

will produce "scientific" evidence for reincarnation. We decide that Jenkins is to be the reincarnation of John Bradford, son of an early Puritan governor of Massachusetts. He lived, let us say, from 1640 to 1721.

Jenkins is a highly intelligent chap. We hypnotize him and for six months he reads everything he can find on early Boston, a result of posthypnotic suggestion, with special reference to this Bradford family. We will give him a year if necessary, but in the end he will be pretty much of an authority on life in Boston, between 1640 and 1721.

We now go back to Boston, hypnotize Jenkins again and he comes out with the assertion that he is the reincarnation of John Bradford. Moreover, in hypnotism, he shows an astounding and accurate knowledge of the Bradford in question, together with an equally detailed knowledge of early life in the city of Boston. We publish this and the press is duly impressed.

Of course, that bubble would burst in very short order, for we have cited a very simple case and have left ourself wide open. Men in military intelligence, trained in our way of using hypnotism, would simply chuckle and await developments. It would take our friends in the press about one week to see through the hoax, uncover that Jenkins had been working hard getting his facts, interview one or two men who are familiar with the military use of hypnotism and brand us for what we were.

So we will convert this into a real brain teaser, using much the same technique but also using our heads. A talking knowledge of military intelligence teaches one to be devious, so we will set up this case with the full knowledge that it had better be good. See if you can follow it. The plan is quite possible from the scientific point of view.

No authority on hypnotism could have his name connected with this case or the scientific world would smell a rat. So we change our identity. Let us say that the writer becomes a Lieutenant Brooks, graduate of Harvard, a former officer in the Navy. On the surface he knows nothing about hypnotism but while in service he was with a certain branch of military intelligence. There he heard lectures on the subject, saw demonstrations and picked up quite a lot on its military application. The subject fascinated him

but he did nothing about it. After his discharge, he entered a bank in Boston and has been there ever since.

Two years ago, the writer suddenly woke up. He reads very widely and came across an article on reincarnation. Things started clicking inside his brain. He looked up those old army notes, read widely on the subject and in six months time, he was ready to go. If he could prove reincarnation, it would bring him fame and money. The case must be foolproof. Work in military intelligence had given him the training for just such a task.

First, who is to be reincarnated? The writer picks up a book in a secondhand store. It covers England during the time of Shakespeare. In it are described some of the escapades of a Sir Edward Cromwell, nephew of Lord Salisbury, wealthy, cultured and somewhat of a reprobate. He will reincarnate Sir Edward. But through whom? The man to be chosen, in hypnosis, must have an intimate knowledge of Shakespeare's England, after the stage has been set. There must be no question of his having picked up that knowledge at Harvard or through outside reading. This requires thought.

Thought gives the answer. In his rooming house is a former Navy seaman, now machinist in a local plant. A graduate of the eighth grade only, he is anything but an intellectual. We know Gus fairly well. We know that he walks in his sleep, a pretty good sign that he will be a good hypnotic subject.

The writer invites Gus to his room, which is nothing unusual. He proposes that Gus allow himself to be hypnotized. He turns out to be an excellent subject. Using the posthypnotic suggestion, we remove from him all knowledge of ever having been hypnotized and make it impossible for anyone else to hypnotize him but ourself. We have covered our tracks and have a good subject who will be above suspicion so far as his education is concerned.

Next, the writer needs a confederate. He selects Ted, who was in the Navy and in the same branch of military intelligence. Graduate of an engineering school, he is with a local aviation plant. He has at least heard of and seen hypnotism, and he can learn, so the writer takes Ted into his confidence. We become partners in crime. The writer must keep himself away from Gus in the months that are to follow.

We are now set to roll, but we take our time, for Ted has work to

do. From secondhand stores, old magazines, anywhere that will not leave a trail, he is to collect a small library on the England of Shakespeare. This he conceals in his own room. It is only then that Gus, acting on hypnotic suggestion, moves in with Ted and shares his room. Gus has suddenly become interested in mechanical drawing and Ted, a trained engineer, offers to help him. Ted is known to work at home evenings, so the picture is quite normal and Gus tells the world what a friend he has in Ted.

Then, note, we shift the hypnotic rapport so that Ted can also hypnotize Gus. This is very simple for a trained hypnotist. For the next three months, Gus is, to the world, getting help from Ted on mechanical drawing while Ted does his own homework. Actually, and in the hypnotic state, he is receiving an intensive course on the England of Shakespeare's day. Pictures, drawings, maps, readings, all go into his education, with special reference to a young blade by the name of Sir Edward Cromwell. He *is* Cromwell as he lives through the scenes of his life.

Finally, the stage is set for the final act. For the last month we have been cultivating the friendship of one of our old history profs at Harvard, a specialist in sixteenth century England, also a couple of capable newspaper reporters. Ted destroys every trace of his library on old England.

Then, one night, the writer happens in on a little informal party at Ted's. He steers the subject to hypnotism. The writer admits that he has heard of it, has never hypnotized anyone in his life, but is willing to try. Very good, but where do we get a subject? Ted volunteers to dig out Gus, busy with his mechanical drawing. We set the stage and Gus agrees to act as subject.

"Gus," we ask, "have you ever been hypnotized in your life?"

True to his training and also speaking the truth, so far as he is consciously aware, Gus replies, "No."

"Very well, we are both new at this game. Let's see what happens."

Strange to say, Gus turns out to be a very good subject! The writer professes to be happily surprised and fumbles along like a confused amateur. Suddenly, Gus takes the reins in his own hands and begins talking in sixteenth century English. He claims to be the reincarnation of a Sir Edward Cromwell who lived in the reign of

Queen Elizabeth! Most surprising! We are all amused and regard the whole thing as a joke, but Gus persists vehemently.

This is too good to miss. We say we know nothing about England in the sixteenth century, and neither does anyone present. Just for the fun of it, let's call in my Harvard professor friend and the two reporters. It is the kind of affair that might amuse them.

The professor arrives, bored, and somewhat irritated. Then he begins to take notice. For Sir Edward-Gus knows his London. In fact, on some points, he corrects our Harvard friend and in no uncertain tone of voice.

This is weird, a Boston mechanic with an eighth-grade education talking Shakespearean English and showing an intimate knowledge of old London. He knew Shakespeare personally, his haunts and his friends. Sir Edward was killed duelling in 1592, but up to that point his record is clear-cut and concise.

Our reporter friends realize this is news. We can shed no light on the matter. This is the first time the writer has ever hypnotized anyone. Try to prove anything else! Ted can testify that Gus spends all his spare time at mechanical drawing and makes very little progress. That statement will also hold water. In fact, we are sitting pretty, and we write a book on Sir Edward Cromwell.

Won't it be exposed? That's not nearly as easy as you might think. Our psychiatrist friends, capable as they are, would probably miss the point. If they didn't, they would be laughed out of court. Their explanation would be ridiculous, in the eyes of the public, and they certainly could never prove it. We have only to stick to our original story and no one but Ted or the writer can hypnotize Gus to get the truth. In fact, we would be greathearted and allow anyone to hypnotize him. They would still get Sir Edward. That could be arranged very easily.

Our military friends would see through the hoax. They would dig up our records and know that we had the background to lay the plot. Then they would maintain a discreet silence. Certain military matters are not for public consumption. Probably, sooner or later, some psychologist with research in hypnotism as his speciality would unravel the whole thing but he would still have a deuce of a time proving it. We would simply sit tight.

We quote this case with no intention of discrediting Bridie

Murphy and Mr. Bernstein. You must judge this matter for yourselves. We are convinced that Bernstein was perfectly honest and reported exactly what he got. We merely express the doubt that any evidence from hypnotism will be accepted as proof of reincarnation. Our psychiatrist friends probably are correct in their ideas that results so far obtained are due to forgotten childhood memories, and those memories have been pretty faulty.

Were those memories almost perfect, as in the case of Sir Edward, the writer for one would immediately suspect fraud. In science, we have the "law of parsimony" which requires the simplest explanation, since we know it is quite possible and eliminates the supernatural.

CHAPTER XI

# *Conclusions*

HYPNOTISM IS a special form of direct or prestige suggestion, something to which we are all exposed every day of our lives. The reader will, in general, be familiar with two types of hypnotism, that used by the psychologist in his laboratory and that used by the stage performer, the "professional." The writer would call attention to a third type of direct suggestion, not generally classed as hypnotism. The orator, in general, be he on the radio or directly addressing an audience, uses all the psychological tricks of the hypnotist and gets most of the results achieved by the latter. In fact, his technique has more in common with the "professional" than has the stage performer's with that of the laboratory psychologist.

True, the orator does not get the trance, but we know that neither trance nor loss of consciousness is necessary in regular hypnotism to obtain all our phenomena. Certain other conditions, such as anesthesia, hallucinations or paralyses, are not common with the orator, although we get all of them in certain religious groups. On the other hand, other phenomena, such as delusions, are far more common in the mob or the crowd than in ordinary hypnosis. For example, we might say with scientific accuracy that the two outstanding characteristics of the modern dictator are delusions of grandeur and delusions of persecution. These he imparts to his followers with no more logical backing than has the subject in hypnotic trance when we tell him he is Abraham Lincoln or George Washington. The writer stresses this point because, to him, the great orator is generally a great hypnotist using direct or prestige suggestion with far more skill than the psychologist employs when he works with hypnotic suggestion. In general, his appeal will be on an emotional, nonlogical basis since this sensitizes the brain and gives his suggestions far greater strength than can be obtained with any logical appeal.

For this reason an understanding of hypnotism is of immense importance to the average layman. We are not now referring to the hallucinations, paralyses, automatic movements, posthypnotic suggestions and autosuggestions which characterize hypnotism both on the stage and in the laboratory, startling as they are in themselves. But these phenomena are of no more practical importance than the description of a surgical operation for appendicitis. In fact, they are of less importance.

But taken as a background from which to understand the human being, his weird excesses in religion and in war, taken as the basis of mob psychology, these phenomena of hypnotism immediately assume an importance as great as any presented by other fields of science. We can understand the working of the dictator's mind and his power over others only as we understand the psychology of suggestion, to which hypnotism is our best approach.

A brief survey of hypnotism as hypnotism impresses us as much with the rigidity of human thought as with the brilliance of the human mind. A Mesmer, a Braid or a Bernheim has courage enough to do a little independent thinking. A dull, senseless opposition of prejudice and inertia, both in the medical and the lay world, grimly puts a brake on progress. But, after all, hypnotism is not the only new development that has been held back. The whole history of human thought warns that the original thinker had better be good and tough, otherwise his days will be none too happy.

But the history of hypnotism also shows us that, given time, the human mind will insist on the truth. Mesmer, back in the 1770's, advanced his crude, fallacious theories, but he opened a great field to investigation. Benjamin Franklin, certainly no hidebound conservative, assisted in running him out of Paris. One hundred years later we find Charcot and Binet still supporting his mistaken views. They were great, original thinkers in their own fields but utterly blind to progress in others. Liébeault and Bernheim finally disposed of that very persistent ghost, animal magnetism. Then from 1900 to about 1930 hypnotism went through another resting stage, crowded out in large part by the work of another original thinker, Sigmund Freud, founder of the psychoanalytical school.

Now we find hypnotism again in the field of active research

Strange to say, many of its most active opponents came from the ranks of our most liberal profession, medicine. Yet it was medical men who, one hundred years ago, gave hypnotism a respectable standing in the realm of science. Truly, we live in a strange world. When now the psychologist proposes to carry his research into the field of education, of crime, even of warfare, we may expect the usual uproar from the layman and even some professional psychologists.

Their attitude is that these truths should not be discussed in public. They are too dangerous, too mysterious, in fact too anything else objectionable that can be thought of. Let sleeping dogs lie. But science never was and never can be concerned with the possible, even probable, misuse of its discoveries. Science seeks truth. Then it must, so to speak, dump it into the lap of the general public and see what happens. The world might be much happier today if the airplane had never been invented, if ships had never been perfected that would sail under the sea or if all atomic explosives could be returned to their original elements and kept there "for the duration of the emergency."

But the human mind never did and never will permit itself to be so limited in its scope. If civilization chooses to use its A bombs and H bombs to blot out civilization, the fault lies with our morals, not with our brains. We must blame our statesmen, our theologians, our cultural leaders, if they cannot keep the human within due bounds. Given national hatred, nations will fight. The club, the spear and the arrow in their own crude way were very effective. So we maintain that we are quite justified in writing all we know about hypnotism.

Many an able critic might be inclined to add "and a great deal we don't know." Unfortunately there is enough truth in that statement to make it hurt, so to speak. We have expressed rather dogmatic views on many points of hypnotism, views which we acknowledge cannot be substantiated by experimental evidence. We also pointed out, however, that proof is impossible in our present society. We simply advanced the problem and what seems to us a probable solution. To wait passively for scientific proof might be to wait another hundred years. If we can provoke our brother psychologists and the general public into demanding proof, even if

we ourselves are in the long run proved completely wrong, we may have answers to some very important world problems in the next five or ten years.

That is one way in which we achieve progress. The extremist has his place in all science, psychology included. A Freud, a Watson, or a Pavlov "starts something." The profession lines itself up in battle array, the pro's and con's spilling ink as generously as any military leader ever spilled human blood. When the smoke of battle clears up, the culprit has either been chased off the field or as usually happens, both sides call an armistice, each agrees that the other was one-tenth right and nine-tenths wrong. Like most human wars, no one appears to win much of anything. But in this battle of ink there is genuine progress toward truth, which is more than we can always say about other battles. And the extremist has his use in that he tends to get people in a working mood by the very dogmatism and novelty of his statements.

No matter what our bias, we must admit that Watson and Freud made, or perhaps provoked, great contributions to the science of psychology. We may thoroughly dislike the extreme behaviorist or the psychoanalyst, but in our calmer moments we can only regret the scarcity of this very annoying type of genius. The writer is rather amused at these last sentences. An extremist himself, he may appear to be claiming the label of genius as well, but he really has no delusions whatsoever along those lines.

We in America have been fortunate and unfortunate in this matter of hypnotism. The "professional" has really been of great service in one respect. He introduced the American public to hypnotism; but he instilled in that public a hearty distrust of the whole science. This was bad in that it carried over to medicine and barred its use by the doctor. But it had its compensations for it forced hypnotism to take refuge in the psychological laboratory. The average psychologist is not much interested in the medical side of the subject. Consequently he began a thorough scientific investigation of all phases. As a result we in America have made more progress along these lines than have any other people. The book published by Hull in 1933 summarizes this progress, points out the woeful gaps in our knowledge and, incidentally, completely overlooks one or two of the most important problems in the field.

Several problems seem now to have been answered to the satisfaction of the majority of psychologists. Susceptibility to hypnotism, it seems pretty well agreed, is one form of exaggerated suggestibility, and dissociation is probably a result of this. Moreover, it is a form of "direct" or "prestige" suggestion which seems quite different from the indirect or nonprestige variety. This is a very important step because it ties hypnotism to other forms of suggestion, especially that of the mob leader.

Then it would seem that human hypnotism has no relation to animal hypnotism, another important decision. Even Pavlov fell into this trap, linking the human and the animal varieties, and making some serious mistakes in his treatment of the whole subject. Frankly, we do not know very much about animal hypnotism but whatever it is, it seems quite distinct from the human brand.

Then we seem to be fairly well agreed on another point. Hypnotism is not the same as sleep. This is very important as even Bernheim and Pavlov were in error on this particular point. The individual in the trance is, in all respects, just as much "awake" as if he were "normal." In fact, it is quite impossible to tell the difference, especially if the subject has been coached to act normal. With this fact at the back of his mind, the modern operator avoids many of the errors into which his predecessors very naturally fell. The "trance," we now know, is not necessary in procuring any of the phenomena of hypnotism, at least if we mean by the trance somnambulism involving loss of consciousness. To be sure, it helps, but the work on "waking" hypnotism has established this point, though it may be of only academic interest to the average reader.

As to the actual phenomena of hypnotism, we seem to be in fairly general agreement. Where disagreement does exist it seems, to the writer at least, that it is largely a question of "operator-attitude," a factor which seems of the greatest importance but which has been given much less attention than it deserves up to the present. The hypnotic subject co-operates in wonderful fashion and tends to give us the answers we want. This fact makes it impossible to apply the research methods of the physical sciences to hypnotism, in fact to many fields of psychology. The attitude of the experimenter means nothing to the working of a chemical formula, to the refraction of light or to a problem in higher mathematics.

In hypnotism it is crucial and the writer would stress it as being the cause of much disagreement among very able operators.

We are fairly well agreed that, using suggestion in hypnotism as the touchstone, we can hallucinate any of the senses. Visions are present and convincing. It is easy to cause hallucinations in the senses of hearing, smell, taste, touch, in fact of any sense organ, including those of the internal organs. These are most easily obtained in somnambulism with its accompanying amnesia but, as before stated, can also be provoked without loss of consciousness.

We again call the reader's attention to another very important fact which we gather from the science of statistics. The individual in deep somnambulism is still an individual. The ease with which we can get certain phenomena conforms to what we term the curve of normal distribution. This fact, it seems to the writer, has been overlooked in many investigations. The mere fact that the subject is a somnambulist guarantees nothing except that on the whole he is more suggestible in somnambulism than in the normal state. But how much more suggestible, or to what extent one can override his ethical background, is quite a different question.

As a matter of fact, we would expect from this curve of normal distribution that a few subjects at one extreme would produce almost any phenomena, and a few at the other, even if somnambulists, give us almost none. The great majority would fall in the middle. This means that it proves nothing if some one particular subject fails to give us the results we have expected. Actually we should expect it, and should expect to obtain the more difficult and questionable results from only a comparatively few people even in the deepest trance.

Paralysis of limbs and contraction of muscles are easily obtained and on this issue there seems very little controversy. Such is also the case when we consider the question of automatic movements, provoked by suggestion. "Rapport" is also a well-known phenomenon but there is now pretty general agreement that it is not genuine. The subject appears to listen only to the voice of the hypnotist but actually he hears everything. This is a little bit of acting, a pastime at which most hypnotic subjects are excellent.

There seems also to be little doubt that we can obtain both anesthesia and analgesia, insensitivity to pain in the hypnotic

trance. Our historical evidence would seem quite conclusive on this point, as well as current research. There is just one little point of disagreement. Is it genuine anesthesia or is it amnesia? In other words, there is a possibility that the subject suffers genuine pain in hypnosis but forgets about it on awakening. The writer sees very little evidence for this viewpoint but it exists.

We hear much talk of great muscular strength in hypnotism and here we find our authorities beginning to disagree. The writer strongly suspects this disagreement is due to operator-attitude and is quite convinced that the subject in hypnotism may exert a degree of strength which is quite impossible under normal conditions. We draw this inference not only from the experimental literature on the subject but also from our evidence that the human can develop tremendous strength in other circumstances. This is clearly seen in the action of the drug metrazol where the patient may literally break his own bones in the violent convulsions which follow its administration. Yet results of experiments are still confused. We can probably say that hypnotism can induce greater endurance, if not greater strength. This statement would be acceptable to authorities.

Great acuity of the senses has also been claimed for subjects in hypnotism. Here the evidence is far from being conclusive. In fact the bulk of our experiments would tend to show that it does not exist. This also applies to those reports we have of a subject being able to judge time intervals with uncanny accuracy. We must bring in the verdict in both these cases of unproved but perhaps possible with certain subjects. We must have a great deal more evidence in this restricted field before we dare come to any definite conclusion.

A curious new approach gives us "time distortion in hypnosis." A subject, it is said, can pack the experiences of a half hour into ten seconds. This technique is so new that we simply have to await developments as to its significance.

We know definitely, it seems to the writer, that we can influence the activities of the autonomic nervous system, that part of our neural structure which controls the internal organs. It seems fairly well agreed that we can influence heart beat, especially if we use some hallucination to excite fear or anger in the subject. So also

we can influence the actions of the digestive tract and of the sex organs. Beyond this point the evidence is very conflicting. Can we, for example, obtain blisters and skin bleeding by means of suggestion? Certainly not proved to the satisfaction of science and yet the production of bleeding would come under the action of the autonomic system. We see genuine examples of this in cases of stigmata reported in church history. This leads us to suspect that it would be possible, but would probably occur with only the very best subjects. The literature on the use of hypnotism in dermatology, which is now considerable, reinforces this suspicion.

We have noted that, according to most authorities, there is no relation between hypnotism and spiritism, in so far as hypnotism is considered as an aid in producing such phenomena as talking with the dead, clairvoyance or telepathy. There is, however, a very close relationship between hypnotism and the mediumistic trance when this is genuine. Induced by autosuggestion, the trance is really a very fine example of self-hypnotism and gives us our introduction to those weird cases of multiple personality which are again produced by a form of autosuggestion which can be obtained by genuine hypnotism and can in turn be cured by the same means.

This writer has pointed out that he takes these "spiritistic" phenomena more seriously than does the average psychologist and that he does not entirely go along with the point of view cited in the preceding paragraph.

Psychologists would also agree that anything which we can obtain in hypnotism we can also get by means of the curious posthypnotic suggestion. This enables us to provoke the phenomenon at any future time, five minutes, five months, possibly five years. We do not yet know just how far into the future we can project these suggestions but we have some reason to believe that the time can almost be indefinite.

We also notice here some other very curious phenomena. By the combined use of hypnotic and posthypnotic suggestion we can get such control over the trance that it can be induced at a moment's notice and so subtly that even a good operator cannot note the change from the normal to the trance state. The fact of whether the subject is "awake" or "asleep" can be determined by certain tests, especially by his ability to resist pain. But without such tests the determination is almost impossible.

Another very interesting point not realized by the general public is that with this combination technique we can remove completely from the subject all knowledge of his ever having been hypnotized. We can bring him to the point where he will insist that he knows nothing about hypnotism whatsoever, that no one has ever attempted to hypnotize him and that he dislikes the whole subject. Yet the original operator or anyone designated by this operator can throw him into the trance in a second.

This leads to a further point. The subject can also be rendered immune to hypnotism by any other operator except the one who does the hypnotic work or any other to whom he may care to transfer the rapport. This is very important when we consider the possible use of hypnotism in crime or in warfare. Because of the peculiar situations existing in both these fields, such control of the subject would be absolutely essential.

Any phenomena seen in hypnotism or the posthypnotic suggestion can also be obtained by means of autosuggestion. True, it is difficult, but it can be done. The best way of initiating autosuggestion is through hypnotism itself. We use hypnotic and posthypnotic suggestion to give the subject control over himself. From then on he can provoke all the phenomena in himself, but the writer regards this as a questionable technique. The subject is likely to set up a condition of dissociation over which he cannot exercise proper control.

Finally, all the phenomena we see in hypnotism can also be found in everyday life, among persons ranging from the normal to the actual insane. This is one reason why the study of hypnotism is so very important. We are able to duplicate the symptoms of neuroses and psychoses in our laboratory and to study them at our leisure.

We find many curious traditions about hypnotism which are either wholly or partly false. There is no need of tremendous will power, the hypnotic eye, or thought transference. It is all a matter of training and technique. Of course, some persons can become more expert at it than others, but we see this in every walk of life: medicine, athletics, music or mechanical ability. Even a victrola record can hypnotize.

Nor has will power anything to do with the subject. That only the weak-willed can be hypnotized is wholly a myth. As a matter

of fact it is impossible to hypnotize the feeble-minded or certain groups of the insane because they do not have the necessary "will power" to co-operate. Another assumption, namely that women are more easy to hypnotize than are men, is doubtful. Nor are alcoholics or criminals good subjects per se. We do find that children between the ages of about eight to twelve are decidedly more suggestible than are adults.

Can an individual be hypnotized against his will? Certainly, for all practical purposes. We prefer to say that he can at least be hypnotized without his consent, even when he has declared he will never allow himself to be thrown into the trance. This we can accomplish by using a disguised technique which the subject does not recognize or, with a good subject, we can transform normal sleep into the hypnotic trance.

The dangers of hypnotism? Greatly exaggerated but they exist. We are not trying to be humorous when we say there is, at present, far more danger to the operator than the subject. Almost any good doctor could become a good hypnotist, and would certainly do much more good than harm. Yet, with the present status of public opinion, his reputation and his income might suffer very severely as a result.

Then there is the question of getting the subject out of hypnotism. Again the tradition is wrong. There is almost never any trouble in awakening the subject from the trance, given a proper technique. The competent operator is far more worried over getting the subject hypnotized than getting him back to normal. Hypnotism, properly used, never weaknened the will of a subject and it certainly never caused "fits," feeble-mindedness or insanity. The real danger with hypnotism is that the unskilled operator may leave his subject so suggestible that he is at the mercy of everyone who, for whim or experiment, may choose to throw him into the trance. Also, he may introduce conflicts into the subject's mind by forgetting to remove suggestions or posthypnotic suggestions which may run counter to the subject's ethical background.

There is undoubtedly some slight danger that hypnotism may be used for criminal ends. The danger is very small, however, when we consider the total picture. If a criminally-minded hypnotist were dealing with a subject who was already a criminal or who had definite criminal tendencies, he could probably use this sub-

ject for his own purposes and probably conceal his part in the crime rather effectively.

But should he attempt to use a subject who had no such character defect, he would have to be an operator of the greatest skill and would probably have to trick his subject into the crime. This seems quite possible by removing from the subject all knowledge of his ever having been hypnotized and by rendering him immune to hypnotization by anyone else. The hypnotist would count on the subject's known willingness to co-operate with an operator in any type of foolish farce. Whether or not the subject would continue to protect the operator when faced with an actual trial, disgrace and imprisonment is quite another matter. The writer is inclined to think that, at least with certain subjects, the real criminal could go free. But, as we pointed out earlier, we cannot answer this question by any experiment so far devised. We would need the actual commission of a crime and a genuine trial. That is a procedure which is impossible in the psychological laboratory.

Similarly, we might possibly be able to use hypnotism in the detection of crime, to uncover information which, at the present time, it is difficult or impossible to get by ordinary means. But again we cannot answer this question in the laboratory. We must wait until such time as the police are willing to use this device and the general public to permit its use. Actually, once the public is educated to the real value of hypnotism we will find that the police will be glad to avail themselves of its use.

There is probably a place for hypnotism in warfare, not only in its use by the intelligence department to obtain vital information for its own ends but also to protect itself against possible use of this device by others. It may be that war will answer many questions concerning the use of hypnotic subjects for criminal ends because its use in warfare would be very close to its use in crime, both in the commission and the detection of crime. This phase of the subject is receiving intensive attention at the present moment and no one is in a position to say just what has happened or what is possible. That may make fascinating reading once the present international situation clears up.

There is undoubtedly great use for hypnotism in the field of medicine, but popular prejudice against it is so strong that the great majority of doctors simply dare not make use of hypnotism

in their practice. This is a great loss because it was the medical man who first gave the subject respectability, who used it with great effect and who still does so in European countries where the stage "professional" has not turned the general public against it. The fact remains, however, that progress in the field of hypnotherapy has been rapid in the last ten years. This applies both to a widening of its field of application and also to the use of new techniques.

Our first step in making hypnotism available to the doctor is one of general education of the entire body politic. First we could prohibit the public exhibition of hypnotic subjects for purposes of entertainment, which we now see in some of our theaters. This would remove the chief center of infection which has led to the violent prejudice in the layman. Next we should educate the layman to realize that hypnotism is simply another branch of science which, like every other scientific discovery, may be put to bad use by the unscrupulous. The danger here, by the way, is far less than the danger we have from most other scientific inventions.

But the real problem in the use of hypnotism is not the control of its use by the psychologist or the stage performer, but rather a careful supervision of orator, press and radio. The psychological devices used by the great orator are practically identical with those used by the hypnotist. In fact we must learn to regard the orator and the mob leader as hypnotists, far more successful and infinitely more dangerous than any hypothetical scheming psychologist in his laboratory.

Hypnotism is simply exaggerated suggestibility. Whether this comes as a result of the hypnotic trance or by the emotions, the second great sensitizer of the brain, makes very little difference. Results are practically identical. The mob leader always has and always will make his appeal direct to the emotions of the mob in question. The more violent and less logical the appeal, the cruder the emotions in question, the greater will be his success. He knows the truth of that catch phrase, nothing succeeds like excess.

Science cannot lead and it cannot lie. It can do very little to make a basic emotional appeal. A chemical formula, a mathematical proposition, the hypothesis of an astronomer regarding the speed of light or the distance of stars, even the discovery of a new

cure for pneumonia, contain very little of the emotional element. They are or they are not facts and we leave it to the expert to decide. We can hardly imagine the Russians and the Americans in a great war because Pavlov insisted that man was merely a machine while some great American claimed he had a soul.

Here we encounter an ugly truth about this animal, *homo sapiens,* the one reasoning, thinking animal in all nature. We might term it the reality of unreality. A lie, once circulated, is with him potentially the truth. His high intelligence he uses only to satisfy himself in his insane pursuit of the pleasure principle and he turns out to be not a rational but a rationalizing animal. To the average German the "scientific" myth of Nordic superiority was grim reality, to his opponents even grimmer reality. The stuff he circulated about the "fiendish Jews" was nonsense to science but terrible truth in so far as these unfortunate people were concerned wherever the Nazi crossed their path.

In fact, so far as human relations are concerned, we may well ask the question of doubting Pilate, "What is truth?" Hitler was a genius or a madman. Fascism was a plague or a model form of government. To the citizens of Warsaw, Amsterdam, Belgrade or London the question was purely academic. They had their answer, an answer which history has given us times without number but which we refuse to accept, namely, that any ruthless leader appealing to the emotions of the mob can plunge this world into a welter of blood.

It would be well for us to center our attention on this form of hypnotism, for it is nothing else. Never before was it more dangerous. Radio and the controlled press are made to order for this type of leadership and when we talk of "making the world safe for democracy" we must realize that, psychologically speaking, the world was never more unsafe for democracy. Group hypnotism, mob leadership, call it what you will, was never more easy than in this day of syndicated press and national hookup. And democracy may find this new world an even more unhealthy place in which to survive than it has been for the last one hundred years.

We in America are cursed with the "holier-than-thou" attitude. It can't happen here. We must realize that it both can and will happen here unless we are eternally on guard. Somehow we must

learn to recognize and discredit those leaders whose appeal is purely emotional, who are our real "professionals" in stage and hypnotic parlance. This will be an extremely difficult task, for all of us, no matter of what profession or trade, react largely on an emotional basis when dealing with our fellow human beings. The fact that we will indignantly protest the contrary merely makes matters worse, proving us not rational but rationalizing animals.

The problem facing us in this country is one of education. None of us has too much of the milk of human kindness in our veins, all of us are prejudiced, irrational, and all this has an emotional basis. If we can realize this for ourselves, and it is a very difficult viewpoint at which to arrive, it must make us more tolerant of the other chap when he airs his prejudices. And no dictator ever rose to power on a program of tolerance. The foundation of democracy, tolerance engulfs the despot like quicksand.

The writer firmly believes that a certain mental attitude he is trying to impart will help greatly to preserve our present institutions. There is danger of a very real sort in hypnotism, but not where the reader has been taught to expect it. The highly emotional orator and mob leader is, from the psychologist's viewpoint, a much more effective hypnotist than any laboratory product. It is he who leads humanity by the nose into its bloody wars. We must learn to discount him, to refuse to be stampeded by his appeals to hatred and prejudice. We must listen always to that still small voice of reason and be tolerant in our own prejudices, for that is all most of our "convictions" amount to. If we as a people grasp this truth, America is safe for democracy.

Let us gaze into the crystal ball and turn prophet. Hypnotism has made startling progress in the last ten years, mostly in the field of medicine. Other areas, equally promising, have been almost completely neglected. We single out for special mention the fields of juvenile delinquency, education, counseling, and vocational training. There are others.

Public prejudices and a lack of trained personnel are the only barriers that stand in the way of progress, for these fields are just as promising as was that of medicine. The future is ours.

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